MARINE MAMMAL PROTECTION ACT OF 1972: THE ESCALATION OF INTERACTIONS BETWEEN THE GROWING POPULATIONS OF MARINE MAMMALS AND HUMAN ACTIVITIES ON THE WEST COAST

OVERSIGHT FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

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C O N T E N T S

OVERSIGHT HEARING ON THE MARINE MAMMAL PROTECTION ACT OF 1972: THE ESCALATION OF INTERACTIONS BETWEEN THE GROWING POPULATIONS OF MARINE MAMMALS AND HUMAN ACTIVITIES ON THE WEST COAST

Tuesday, August 19, 2003
U.S. House of Representatives
Subcommittee on Fisheries Conservation, Wildlife and Oceans
Committee on Resources
San Diego, California

The Subcommittee met, pursuant to call, at 10:02 a.m., in the Shedd Auditorium, Hubbs Sea World Research Institute, San Diego, California, Hon. Richard W. Pombo [Chairman of the Subcommittee] presiding.

Present: Representative Pombo (ex officio).

Also Present: Representative Cunningham.

Mr. POMBO. I call the hearing to order. To begin with, I want to welcome everybody here. I want to welcome my good friend, Congressman Randy "Duke" Cunningham, who is with us today sitting as a member of the full committee for the purposes of this hearing. I would like to recognize Congressman Cunningham to introduce our first two guests.

Mr. CUNNINGHAM. Thank you, Mr. Chairman. I left Hawaii yesterday to do this, and the big island yesterday was beautiful. I saw turtles and big manta rays, and it was beautiful. I actually went swimming snorkeling with a dolphin that played with us, about 200 of them.

Mr. POMBO. Really?

Mr. CUNNINGHAM. Oh, it was beautiful. Anyway, we are here. Randy Treadway will offer the pledge, and he is from VFW 5431, a veteran, and if you would stand with Mr. Treadway and offer the pledge of allegiance.

[Pledge of Allegiance.]

Mr. CUNNINGHAM. And if you would stay standing, and a good friend, Dr. Bob Winerton—some people walk a mile for a camel, and this guy drove all the way from Alpine just to give the prayer this morning. Thank you, Bob.

[Invocation.]

OPENING STATEMENT OF THE HON. RICHARD POMBO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. POMBO. Thank you and good morning, and I am pleased to convene this hearing this morning. Before we get started, I would like to extend my sincere appreciation to our host, Dr. Don Kent, president of HUBBS-Sea World Research Institute. I want to thank Dr. Kent for graciously hosting the Committeethis week.

I also want to thank Jennifer Leblanc with the HUBBS; and Matt Cruz, with Sea World, who have been valuable assets in organizing today's hearing. The topic of this hearing is certainly timely.

The increased interactions between humans and sea lions, and seals, have been in the news recently, and the Committee on Resources, specifically the Subcommittee on Fisheries Conservation, Wildlife and Oceans, is currently in the process of reauthorizing the Marine Mammal Protection Act.

There have been numerous press articles about the children's pool in La Jolla, the National Marine Fisheries Service, the management agency for pinniped populations under the Marine Mammal Protection Act, just issued fines to a number of individuals that swam in the pool area who were trying to show that humans and seals can coexist.

One of the swimmers was bitten by a seal, and a number of seals stormed off the beach, which demonstrates that in these types of situations both people and the animals can be harmed. In addition, there have been reports that sea lions have taken over docks, sailboats, and other structures in marinas, getting into bait boxes, and stealing fish off of lines, and out of fishing nets.

Aquaculture operations have also been adversely affected by these animals. This hearing is being held specifically to try to determine what actions have been taken to date to minimize these interactions, and what types of research are being undertaken by the State and Federal management agencies to address these issues, and what actions, if any, should be taken by Congress.

The Subcommittee on Fisheries Conservation, Wildlife and Oceans is currently reviewing the Marine Mammal Protection Act to determine what changes need to be made during this reauthorization process.

Subcommittee Chairman Wayne Gilchrest and I introduced H.R. 2693, the Marine Mammal Protection Act Amendments of 2003 on July 10th, 2003. Section 7 of this bill authorizes the Secretary of Commerce to conduct research on the non-lethal removal and control of nuisance pinnipeds.

This hearing will better define the scope of these interaction issues, and hopefully from the testimony, we can determine if additional changes to the Marine Mammal Protection Act are necessary.

The Marine Mammal Protection Act is an interesting law, because in many ways it is more restrictive than the Endangered Species Act. However, unlike the statute, its coverage is uniform regardless of whether population of marine mammal species is growing, decreasing, or stable. There is no distinction.

One of the primary goals of the Marine Mammal Protection Act is to restore or maintain the marine mammal populations to their

optimum sustainable population. In addition, the MMPA requires the same protections for all marine mammals regardless of their population status.

Therefore, robust populations of California Sea Lions receive the same protection as endangered Northern right whales. In the 1970s when the MMPA was first enacted, marine mammals needed across the board protection due to an overall declining population numbers.

However, 30 years later that Act has been very successful in rebuilding many marine mammal stocks. While I believe there should be protection for marine mammals, we need to find a proper balance which allows the children of La Jolla to use their beach, recreational fisherman to land an entire salmon, and not just part of it, and boaters to access their vessels without being injured by an overly aggressive sea lion.

It is obvious to me that Northern right whales, with a population of less than 300 animals, needs to be protected. On the other hand, robust marine mammal populations that have increased interactions with the public may be adversely affecting other marine species should be managed differently.

We are already seeing injuries to people and increased frustrations. These frustrations could lead to actions that may harm the marine mammals. Land-based wildlife managers have the ability to address these types of interactions. The managers of marine mammals have a different standard.

We can have protections for marine mammals, but we need to find an equitable solution to the problems arising from their growing populations. I look forward to hearing the testimony presented today, and would like to recognize my friend, "Duke" Cunningham, for any opening statement that he may have.

[The prepared statement of Mr. Pombo follows:]

Statement of The Honorable Richard Pombo, Chairman, Committee on Resources

Good morning. I am pleased to convene this hearing. Before we get started I would like to extend my sincere appreciation to our host, Dr. Don Kent, President of Hubbs Sea World Research Institute. I want to thank Dr. Kent for graciously hosting the Committee this week. I also want to thank Jennifer Leblanc with Hubbs and Matt Cruz with Sea World who have been valuable assets in organizing today's hearing.

The topic of this hearing is certainly timely—increased interactions between humans and sea lions and seals have been in the news recently and the Committee on Resources, specifically the Subcommittee on Fisheries Conservation, Wildlife and Oceans, is currently in the process of reauthorizing the Marine Mammal Protection Act (MMPA).

There have been numerous press articles about the Children's Pool in La Jolla. The National Marine Fisheries Service, the management agency for pinniped populations under the MMPA, just issued fines to a number of individuals that swam in the pool area who were trying to show that humans and seals can coexist. One of the swimmers was bitten by a seal and a number of seals stormed off the beach, which demonstrates that in these types of situations both people and the animals can be harmed. In addition, there have been reports that sea lions have taken over docks, sail boats and other structures in marinas, getting into bait boxes and stealing fish off lines and out of fishing nets. Aquaculture operations have also been adversely affected by these animals.

This hearing is being held specifically to try to determine what actions have been taken to date to minimize these interactions; what types of research are being undertaken by the state and federal management agencies to address these issues; and what actions, if any, should be taken by Congress.

The Subcommittee on Fisheries Conservation, Wildlife and Oceans is currently reviewing the MMPA to determine what changes need to be made during this reauthorization process. Subcommittee Chairman Wayne Gilchrest and I introduced H.R. 2693, the Marine Mammal Protection Act Amendments of 2003, on July 10, 2003. Section 7 of this bill authorizes the Secretary of Commerce to conduct research on the non-lethal removal and control of nuisance pinnipeds. This hearing will better define the scope of these interaction issues and hopefully, from the testimony, we can determine if additional changes to the MMPA are necessary.

The MMPA is an interesting law because in many ways it is more restrictive than the Endangered Species Act. However, unlike that statute, its coverage is uniform regardless of whether a population of marine mammal species is growing, decreasing, or stable. There is no distinction. One of the primary goals of the MMPA is to restore or maintain marine mammal populations to their optimum sustainable population. In addition, the MMPA requires the same protections for all marine mammals regardless of their population status. Therefore, robust populations of California sea lions receive the same protections as endangered northern right whales.

In the 1970s when the MMPA was first enacted marine mammals needed across the board protections due to overall declining populations numbers. However, thirty years later the Act has been very successful in rebuilding many marine mammal stocks. While I believe there should be protections for marine mammals, we need to find a proper balance which allows the children of La Jolla to use their beach, recreational fishermen to land an entire salmon, not just part of it, and boaters to access their vessels without being injured by an overly aggressive sea lion.

It is obvious to me that Northern right whales, with a population of less than 300 animals, need to be protected. On the other hand, robust marine mammal populations that have increased interactions with the public and may be adversely affecting other marine species should be managed differently. We are already seeing injuries to people and increased frustrations. These frustrations could lead to actions that may harm the marine mammals. Land-based wildlife managers have the ability to address these types of interactions, but managers of marine mammals have a different standard. We can have protections for marine mammals, but we need to find an equitable solution to the problems arising from their growing populations.

I look forward to hearing the testimony presented today and recognize Congressman Duke Cunningham for his opening statement.

Mr. CUNNINGHAM. Thank you, Mr. Chairman.

Mr. POMBO. If the gentleman would yield for just a minute. This is a—and I should have said this at the very beginning. This is an official congressional hearing, and as part of the House rules, it is not allowed to have any kind of reaction or clapping, or booing, or anything else from the audience.

We have to maintain decorum within the room, and so therefore I would ask the audience and the witnesses to maintain that decorum.

Mr. Cunningham.

Mr. CUNNINGHAM. I thought that they were clapping for me, Mr. Chairman. Rich Pombo and I, and Wayne Gilchrest, are all classmates, and I have worked together with Rich for 12 years, and I want to tell you that his heart is in the right place of protecting our sea life and other life on this planet.

But he also looks in doing it in a fair and equitable way, and I think that the people outside should be cheering for Chairman Pombo, and he is here to listen, and he is here to open up remarks to find out solutions, and I think that is fair across the board.

In my own background, as to oil drilling off the shores of California, and that is my bill working with the Senate that stops new leases and oil drilling. I don't want San Diego to become another Long Beach, even though some of that is seepage until they can prove that they can protect our shores.

The shark thinning bill was my bill. Rich helped me with that, along with Wayne Gilchrest, and I read in a magazine, in a surfer magazine on the airplane about how fishermen were taking sharks, and cutting the fins off, and then dropping the carcass back in the water. That's wrong.

I am a sportsman, but I also want to protect the species. Elephants in Africa, and tigers in India, needed protection, and those are my bills also. Probably most of you know about the tuna dolphin bill that protects not only the subspecies, the dolphin, the turtles, but also allows us to harvest mature tuna.

But I want to welcome Chairman Pombo to San Diego. I want to tell you that we have some of the best science I think in the world with HUBBS, and with Scripts Oceanographic, with the Academy of Science. I am not an expert. I am here to listen.

But when we take our information and bounce it off the professional organizations that are here to protect species, I want to thank Chairman Pombo and the rest of the folks that are here to testify on both sides of the issue, because I think it is important.

And I am not going to reiterate what you just said, but with that, Rich, we want to thank you to the world's finest city, San Diego, and you are always welcome, and we will give you a bad cup of Navy coffee.

Mr. POMBO. Well, thank you. Any time I can leave 100 degree weather and come down to 70 degree weather, that is OK. But I would like to ask for unanimous consent to include in the record the opening statement of the Subcommittee Chairman, Wayne Gilchrest of Maryland, who originally had planned to be here at this hearing.

Unfortunately, he had some health problems and was not able to make the trip out. But I would like to ask for unanimous consent to have his opening statement included in the record. Without objection.

[The prepared statement of Mr. Gilchrest follows:]

Statement of The Honorable Wayne Gilchrest, Chairman, Subcommittee on Fisheries Conservation, Wildlife and Oceans

Good morning. Today's hearing is an integral part of the reauthorization of the Marine Mammal Protection Act (MMPA). The Subcommittee on Fisheries Conservation, Wildlife and Oceans is currently reviewing many important issues and trying to find reasonable, science -based solutions.

There have been many articles in the press over the past few months detailing how different marine mammal populations—California sea lions, Pacific harbor seals and sea otters—have adversely affected fish stocks, and have overtaken public beaches, docks at marinas and private boats. In some of the articles, there have been references to human injuries and marine mammal injuries.

Chairman Pombo and I have introduced a bill, H.R. 2693, to reauthorize the MMPA. As we continue to craft this legislation and look forward to a markup in the Subcommittee in September, we will consider the need to both protect sensitive, fragile species of marine mammals and to manage populations of marine mammals that have successfully recovered. H.R. 2693 does contain an authorization for the Secretary of Commerce to conduct research on the non-lethal removal and control of nuisance pinnipeds.

This hearing will help us better understand the frustrations people are experiencing in conflicts with these plentiful animals as well as the habitat use of California sea lions and Pacific harbor seals. I hope to more fully understand the historical haul-out areas used by these marine mammal populations, how it compares to their current haul-outs areas and if there is a way to separate specific areas for seals and sea lions and for human activities. Today's testimony will help the development of the MMPA reauthorization by identifying management of

human/pinniped conflict and how it has succeeded or failed in the past. This hearing will help focus our attention on actions that have been taken to date to minimize these interactions; what types of research are being undertaken by state and federal management agencies to address these issues; and what actions, if any, should be taken by Congress.

I believe there is a way to find compatibility between the needs of these marine mammal populations and responsible human activities. I look forward to hearing the testimony and discussing ways to resolve these issues that is satisfactory to both the human and marine mammal populations.

Mr. POMBO. I would like to welcome our first panel here today, and before we take testimony, it is customary that we swear in all of the witnesses who testify before the Resources Committee. I would like to ask you to stand and raise your right hand.

[Witnesses sworn.]

Mr. POMBO. Let the record show that they all answered in the affirmative. Thank you very much. Mr. Anderson, we will begin with you, and just one note. The lighting or the timing system, what we do is we limit the opening, the oral testimony, to 5 minutes, and your entire written testimony will be included in the record.

So if you could kind of summarize your prepared testimony. The lighting system is in front of you, and the green light stays on four 4 minutes; and the yellow light comes on for 1 minute; and then the red light comes on, and I would then have to ask you to try to wrap it up at that point.

So, Mr. Anderson, welcome to the hearing, and when you are ready, you can begin.

STATEMENT OF CARL ANDERSON, DIRECTOR OF PUBLIC FACILITIES, CITY OF MONTEREY

Mr. ANDERSON. Thank you very much, Chairman Pombo, and Congressman Cunningham. It is a pleasure to be here this morning. Again, my name is Carl Anderson, and I am the director of public facilities for the city of Monterey. I have had the privilege of having that responsibility and being in charge of the harbor and marina for 21 years.

The experience that the city of Monterey has had with sea lions is beyond bizarre, and I would like to share some of those experiences with you. But first let me tell you that Monterey, like San Diego, is also the West Coast heart of conservation. We are blessed with the Monterey Bay Aquarium, and the Monterey Bay Research Institute, and 21 other additional marine research institutions in our area.

We are also in the heart of the Monterey Bay Marine Sanctuary. So Monterey has a very special heritage in marine conservation. Therefore, it is ironic that the city of Monterey happens to be a regional, national, and international draw for travelers and that we should end up being the poster child for well-intended conservation measures that have succeeded far too well.

But first of all, we have had a series of huge problems with marine mammals over the last—for approximately 18 years. The federally protected California sea lions seems to be well above the historic natural levels and well beyond the level of sustainability.

The rapid population growth for these animals has caused extraordinary competition for haul-out space, food, and other resources. Our city has a resident population of sea lions on an average of about 150 that are in our community.

However, in 1990, 1997, and again this past May, we suffered extraordinarily large incursions of marine mammals, and primarily sea lions, and primarily juvenile sea lions, that have arrived in the numbers of somewhere between 1,000 and 1,500. We know that Monterey is a wonderful tourist destination, but quite frankly we can't figure out why the sea lions want to come to Monterey every year.

The public enjoys viewing these animals. The animals posing, I believe, for our spectators. However, there are distinct safety, public property, and public health problems that go along with sea lions.

The first example that I would like to call your attention to is this area. This was early May of this year, over a 40 hour period of time, and these young sea lions just all appeared. If you have a copy of the testimony, there is also photographs in your packet that you might be able to see a little bit better.

This is one of our two launch facilities, and this is a boarding float out here, and this is Navy and Coast Guard property. I don't know if you are able to see the sailboats here, and the Coast Guard boats that are covered with sea lions.

Just beyond is our city fire boat, as well as our Coast Guard response vehicles, that are so impacted with sea lions that you can hardly get to them. So it really slows our ability to respond.

I also have some letters from neighboring businesses that were so inundated with this problem, and particularly the stench of the animals, that they had to close their business. It was just simply so bad that you could not be near them.

It does not show in this picture, but at the top of the launch ramp, we erected a fence all along the top of the bluff that is designed to keep the public or the sea lions from coming up into the parking lot, and further up we have another fence that protects the citizens from going down to the sea lions, because they don't realize that these are wild animals.

They look cuddly, and you would like to probably pet them. But we know what can happen when that happens. We have had problems with them jumping en masse on to the docks, and if you could put that one up, please. This is in the Monterey marina.

You will notice that they are all very shiny and that means that they just got out of the water. We had cleared this dock by having a person go down, and what we use is a tether ball on a pole, and we swing it around, and that seems to bother them, and as you do it more and you bounce it on the dock, they will eventually get off.

But as soon as you leave, within 5 minutes they are back. So it just continues to be a problem. They have shown very aggressive behavior, and they have physically damaged our docks. This happens to be a whole new marina that we rebuilt. Our earlier additions of this was wood.

They would break off water faucets, and they would knock off electrical panels. These are electrical panels, and if the big ones lean against those, they can break them over. This is a wooden

whaler on the side of a concrete dock. Too much weight and they actually can flex that and break it.

And obviously when you have a situation like that, it denies access for the public to their own boats. They have chased boaters, and they have chased our staff. I will show you some of that a little bit later.

Fortunately, we have had lots of pant leg nips, but very few actual bites. These vessels actually belong to the Navy. They are the Naval Postgraduate's sailing club. Those are wooden shields and you can see the water line right there.

Unfortunately, the Navy erected these barriers along the docks that keeps them off the docks, and it makes it very difficult to get to the boat, but it also—it didn't protect their vessels in time, and I don't know how they ever cleaned those vessels. It is beyond recognition.

The next photograph depicts outer harbor moorings. The sea lions are very athletic and they have the ability to jump on the boats, and this was a very pristine vessel, and it is difficult to see all the gray streaks and so on. You will see a little more about that vessel in a minute.

The next vessel, a 26-foot trimaran, was out on a mooring, and approximate 600 to 800 sea lions got on that vessel and sunk it. Fortunately, we were able to refloat it, and bring it to the marina, and the owner was able to clean it up, and put it back into service.

The next one documents our dinghy dock. As you can see one sunk dinghy right here, and what happened is that this entire area had approximately 40 dinghies. The sea lions decided that they would rest on the dinghies, and sunk every one of them, and did damage.

We actually had to pump them out, and put the dinghies up on the dock, and now they are on top of the dinghies which are upside down. So, again if you have a boat on a mooring, you can't get to your dinghy to get out to the mooring.

The next one is a particular aggressive mammal, and he is about 50 yards away from the water, and he had come up on a launch ramp, and this is one of our harbor maintenance crew. By the way the only reason he allowed me to use this photograph is because you can't see his face.

He is in fact running away from that sea lion because he went out to try to shoo it back into the water, and it charged him. This guy is about 6 foot 5, about 300 pounds, and if you look closely, both feet are off the ground.

We eventually had two staff member—he got all the way out to Del Monte Avenue, and if you know Monterey, that is a major thoroughfare, and you can imagine the problems that could have created for both himself and traffic. We were eventually able to shoo him back into the water.

The next one is—I don't have polite words to describe this, but that was a sailboat that I told you was pristine, and this is the cockpit, and please notice the tiller has been broken off, and that is a combination of fecal matter and vomit. Again, it is not a very pretty picture, and if that was your boat or my boat, I think you would be very, very unhappy.

The next photograph is an unfortunate one. This is a dead sea lion, and he is a relatively young male. We are at the present time collecting between 5 and 10 sea lions a day that we dispose of that are dead.

We believe that some of them are diseased, and some of them are malnourished, and they are dying at an alarming rate. The next one that we have is one of our more bizarre photographs. This is the hull of a large commercial fishing boat that was out on a mooring, and the sea lion got up in the boat, and managed to fall into the hold. This is an 800 pound sea lion.

We had friends from three mammal groups using a cargo net that we eventually got around the sea lion, and hauled him out. It is not the kind of thing that you want to get involved in daily.

For the past 12 weeks we have been spending on an average of $2,000 to $3,000 per week just in staff time cleaning up after the sea lions. There are extreme public property issues, and public safety issues, and health impacts. Since 1990, we can document over a million dollars in costs that these sea lions have caused in damage to property, lost business, and staff cleaning up from the mess that is left.

In my opinion, there must be some non-lethal measure that can be put in place to bring the population of the sea lions under control. More aggressive, but not injurious, management means should be legalized. We are operators. We are not scientists, and we would look to the scientific community to please develop a method to help us control these problems. I would be happy to answer any questions.

[The prepared statement of Mr. Anderson follows:]

Statement of Carl Anderson, Director of Public Facilities, City of Monterey, California

Chairman Pombo, Members of the Committee, Congressman Cunningham: My name is Carl Anderson and I am the Director of Public Facilities for the City of Monterey. I have been responsible for our harbor and marina for 21 years. I appreciate being afforded the opportunity to speak about the City's experiences with California sea lions.

The Monterey Bay region is a west-coast center of ocean conservation. We are the home of the Monterey Bay Aquarium, the Monterey Bay Aquarium Research Institute, and another twenty-one marine science institutes. We are at the heart of the Monterey Bay National Marine Sanctuary. Monterey Bay and adjacent waters have rich fishing grounds that still support a fishing heritage, which contributes to the economy of our City.

It is, therefore, ironic, that our City, which draws regional, national and international travelers to experience the wonders of our coast and bay, should also be the poster child for a well intended conservation measure—which has succeeded too well. What began as an effort to protect marine mammals now has created a huge new set of problems for sea lions, and for our community. Federally protected California sea lions seem to be well above historic natural levels and well above sustainability. The rapid population growth of these animals has caused a competition for haul-out space and for food for which there are no real winners.

The City always has a resident population of sea lions in our waterfront area that number about 150 animals, year round. In 1990, 1997 and again beginning last May, we experienced even larger incursions of these animals which brought between 1,000 to 1,500 animals into our waterfront, the majority of which appear to be pups. We don't know why they come here, unless they've heard what a wonderful place Monterey is to visit.

While there is no doubt the public enjoys viewing these animals at a distance, the animals pose distinct safety, property damage and public health problems. These problems far outweigh any public benefit.

1. We have had problems with up to 700 sea lions taking over one of our two public launching ramps. The problem was so severe that we had to close the launch ramp to the public, which in turn affected several businesses that operate in the launch ramp area. When the public went away, these businesses withered for about a month. (attachment 1, 2)

2. We also have problems with the animals jumping up in-mass onto our docks. Sometimes their aggressive behavior denies public passage for people to get to their boats. The sea lions have physically damaged our docks by their weight, breaking the wood components. They have chased our boaters. We've had numerous torn pantlegs, but luckily, only a few bites. The fact that there are so many sea lions has caused the animals to haul out onto boats and docks, places they would not normally rest on. (attachment 3)

3. We have also had problems with sea lions boarding and sometimes sinking vessels. (attachment 4, 5) One such vessel, a 26-foot trimaran (then on a mooring, now raised), was sunk last month by about 100 sea lions. (attachment 6)

4. We have had 40 of our small dinghies sunk or damaged by the sea lions. (attachment 7)

5. Animals sometimes actually go up to our public walking trail and streets, posing significant dangers to the public, as these animals can be quite aggressive. (attachment 8)

6. Both the Coast Guard and our City Fire boat have had their essential missions compromised by the large number of animals that are in the way, causing delays to the crews trying to get down to their boats.

7. Fishermen have had significant impacts from the sea lions. Losses to fishermen affect the economy of our City. I know that others will speak to this today.

8. When sea lions go up onto our launch ramps, docks, boats and the recreational trail, they pose significant health hazards. They defecate and vomit parasites wherever they go. The stench in any area after even a few hours is nearly overwhelming. The water quality in our harbor is very poor when the animals are present. (attachment 9, 10)

9. Many of the animals appear to be sick or starving. Our crews are removing 5 to 10 dead sea lions a day from our waterfront area. (attachment 11)

For the past twelve weeks the City of Monterey has been spending $2,000 to $3,000 per week to try to avert the most extreme property, public safety, and health impacts from these animals. Since 1990, City and private costs related to sea lion problems exceed one million dollars. For our current problem, we have no idea if, or when, this problem will end. Since they are a Federally protected marine mammal, we have very limited means available to us to discourage the animals from coming up onto public areas.

It is my opinion that some non-lethal measures must be put into place to bring the sea lion population under control. More aggressive, but non-injurious, management means should be legalized. We must look to the scientific community for answers. If we do not take action, I suggest that we will surrender a significant portion of the West Coast's waterfront, and fishery resources, to these animals, overtime.

I want to thank the Committeefor their time and I am available to answer any of the committee's questions.

Thank you.

[NOTE: Attachments to Mr. Anderson's statement have been retained in the Committee's official files.]

Mr. POMBO. Thank you.

Ms. Merryweather.

STATEMENT OF MELINDA MERRYWEATHER, TOWN COUNCILMEMBER, LA JOLLA, CALIFORNIA

Ms. MERRYWEATHER. Good morning. My name is Melinda Merryweather, and I am here speaking on behalf of my community of La Jolla, and I want to thank you all for letting me speak. I have lived in La Jolla for most of my life, and I am a member of the town council, and served on the parks and beaches committees, and helped to write a community plan, and I am an environmentalist.

La Jolla is a small, older historic community, and in 1931 Ellen Browning Scripps saw the need in our village to create a safe place

for children, and the elderly, and the handicapped to learn to swim in the ocean.

There was so great a need for this in our community that she spent $60 thousand, which was a huge amount of money in those days. She was granted permission to take a small area of the beach and it was similar to a tide pool at that time, and erect a large carved curved wall with openings in it, and it had flue ways in it.

We now had the only man-made beach on the entire coast of California. There was a parade, a dedication, and a piece of legislation was created that called out and placed certain conditions on this man-made beach.

It stated that said land shall be devoted exclusively to public park, bathing pool for children, parkway, playground, and for recreational purposes. I feel that this legislation should still be honored today.

This was the first document in the State of California that talks about beach access, and maybe the first loss of beach access in the State of California. My grandmother swam at the children's pool, as did my mother, and I learned to swim in the ocean there, and I taught my son to swim there, and now I want to teach my granddaughter to swim there.

People and wildlife existed for over 70 years in this area in perfect harmony. In 1972, the MMPA came into effect to protect the seals, and for 25 years even though that was in effect, we still swam and used the beaches as usual, even though the law was in effect.

In 1997 the beach was closed and declared a natural haul out site by NOAA due to fecal pollution levels caused by the seals and the beach was closed. Our community is now dealing with a totally confusing message of enforcement.

No wonder the top marine biologists at the National Marine Fisheries warned the city 10 years ago do not let the seals come on to a public populated beach. He was very clear about that. We all must know by now that as soon as man interferes with nature, we blow it every time. It never fails. This is a clear case of man interfering with nature that allowed this to happen.

Last week, I went around the corner from the children's pool to the cove beach, and I saw people practically sitting on top of each other, and there were so many people crowded on to that little beach. And I sent over to the children's pool and there were no children and there were no seals. There was nothing.

I think this is a pathetic waste of a wonderful resource, and I think it is an insult to the accepted gift of Ellen Browning Scripps. Some people say that it is along the lines of if you had a pack of coyotes who took over a neighborhood soccer field, would we all stand back and say that's find and let them have it?

As a matter of fact, let's create a legislative Act that protects them. It would never happen. This is a problem that is so out of hand that it has made it to the cartoon section of national newspapers, national spoof t.v., Tom Brokaw, the New York Times. This is a situation that has to be corrected.

We were even asked this year to perhaps not do the fireworks in La Jolla because it would disturb the seals. It is a depressing situation, and we have seal feces, dead seal carcasses, polluted

water, foul air, with airborne diseases, injured seals, but no one is allowed to help, and buried seals, and trash that can't be removed.

We have even tried to clean the beach up and we have asked if we can go down and take the seal feces off the beach so you can at least sit close to the beach, and we have been told that we can't touch it.

All of this is due to Level B harassment guidelines of the MMPA. We are asking you to amend the MMPA in a way that allows municipal governments the opportunity to prevent seals from taking over a populated, heavily used, public beach. We would like to retain our original status as a public populated man-made beach park with the children's pool.

I want to remind you that the children's pool is a man-made beach. It is not a natural anything. It is a man-made beach. That was a tide pool before the wall was put up. We have lived and swam at this pristine beach and gentle water access with the seals for over 80 years.

Let the seals and the people co-exist like they always have, in a healthy environment, of equilibrium, and please restore the clean air and clear water, and our beach access. This could be all accomplished by restoring the children's pool to a public beach status, and removing the stipulations that go with the natural haul out status, which clearly it is not.

This could eliminate the expensive and ridiculous lifelong policing problem forever, and this is an enormous policing problem. I know that it costs the city a ton of money. It is so ridiculous to me that this is even happening.

And this picture here shows that this is what we are going to lose. This sits empty. This whole entire area here in La Jolla sits empty today. No children, no seals, no nothing. It is just a smelly, dirty, horrible spot, and I think it is—and it is also to me one of the important things is being part of the surf world is that it is the first time that I have ever been denied access to go in the ocean, and I think that it is our constitutional right to go in the ocean.

And this may be the first case of that being prevented, and I think that is something that we can't allow to happen. Thank you for your time, and I really appreciate you guys listening to this. It is a huge issue, and I am here for any questions. Thank you.

[The prepared statement of Ms. Merryweather follows:]

Statement of Melinda Merryweather, Town Councilmember, La Jolla, California

My name is Melinda Merryweather. I am here speaking on behalf of my community of La Jolla. Thank you for letting me speak.

I have lived in La Jolla most of my life. I am a member of the Town Council, serve on the Parks and Beaches Committee, and helped to write our community plan, and I am an environmentalist.

La Jolla is a small older historic community which truly is one of the most beautiful communities on the entire coast.

In 1931, Ellen Browning Scripps saw the need in the village to create a safe place for children, elderly and the handicapped to learn to swim in the ocean. The need was so great she spent $60,000. which was a huge amount of money in those days.

She was granted permission to take a small area of beach- similar to a tide pool- and erect a large curved wall with openings in it. We now had the only man-made beach on the entire coast of California.

There was a parade, a dedication and a piece of legislation was created that called out and placed certain conditions on this man-made beach. It stated—"That said

lands shall be devoted exclusively to public park, bathing pool for children, parkway, playground and for recreational purposes."

This legislation still should be honored.

This was the first document in the State of California that talks about beach access and may be the first loss of beach access in California.

My grandmother swam at the Children's Pool as did my mother. I learned to swim in the ocean there, I taught my son to swim there and now I want to teach my granddaughter to swim there.

People and wildlife existed for over 70 years in perfect harmony.

In 1972 the MMPA came into effect to protect the seals But for 25 years—we still swam and used the beach as usual even though it was in effect.

Then in 1997 the beach was closed and declared a natural haul out site by NOAA due to the high pollution levels caused by the seals.

Our community is now dealing with totally confusing messages of enforcement. No wonder the top Marine Biologist at National Marine Fisheries warned the city 10 years ago not to let seals start to come onto a public populated beach. We all must know by now that as soon as man interferes with nature we blow it. It never fails. This is a clear case of man interfering with nature.

Last week I went to the Cove Beach—a small beach next to the Children's Pool. It was packed with people all but sitting on top of each other, and at the Children's Pool—not a soul. No people. No children no seals.

This is a pathetic waste of a wonderful resource. This is an insult to the accepted gift of Ellen Browning Scripps.

Imagine if you had a pack of coyotes who took over a neighborhood soccer field. Would we all stand back and say that's fine let them have it. Matter of fact, let's create a legislative Act that protects them!

It would never happen. This is a problem that is so out of hand it has made it to the cartoon sections of national newspapers, National spoof tv, Tom Brokaw, and The New York Times. This is a situation that has to be corrected—We were even asked to consider having a permit for our fireworks this year so as not to disturb the seals.

It is a depressing situation. We have seal feces, dead seal carcasses, polluted water, foul air with airborne diseases, injured seals that no one is allowed to help, buried seals and trash that cannot be removed. All due to the Level B harassment guidelines of the MMPA.

We are asking you to amend the MMPA in a way that allows municipal government the opportunity to prevent seals from taking over a populated heavily used, public beach.

And we would like to retain our original status as a public, populated man-made beach park at the Children's Pool. We have lived and swam at this pristine beach and gentle water access with the seals for over 80 years. Let the seals and the people co-exist like they always have in a healthy environment of equilibrium and please restore the clean air, the clean water, and our beach access.

This could all be accomplished by restoring the Children's Pool to a public beach status and remove the stipulations that go with a Natural Haul out status—which it clearly is not. This could eliminate the expensive, ridiculous lifelong policing problem forever and return this huge and wonderful resource to our community.

Thank you for taking the time to listen and to be here. I am available for any questions.

[The following letter was submitted for the record by Ms. Merryweather to clarify her testimony:]

AUGUST 29, 2003

Dear Chairman Pombo and Committee Members

I was one of the speakers at the field hearing on August 19th in San Diego.

I am writing to amend the statements that I made under oath during the questioning after my statement. During the questioning I was asked whether I had spoken to the seal supporters, and who they were. At the time I said they were a kinder and gentler group, and then said that Hubbs-Sea World had been involved in the beginning of the docent program. I would like to clarify that the Hubbs-Sea World was in no way ever involved in any seal support group that has been aggressive, and is not part of the group that is now currently patrolling the Children's Pool.

Secondly, I was recently speaking with Michelle Zetwo, one of the enforcement officers of the San Diego area for the MMPA. She mentioned that I should get my facts straight about an incident I mentioned regarding the surfer that had to use the Children's Pool beach to swim in after he had lost his board. The statement I made was that he had received a citation for $100, when, in actuality, he received a warning. I would like to have this information in the record.

Thank you.

MELINDA MERRYWEATHER

Mr. POMBO. Thank you.

Mr. Fletcher.

STATEMENT OF ROBERT C. FLETCHER, PRESIDENT, SPORTFISHING ASSOCIATION OF CALIFORNIA

Mr. FLETCHER. Good morning, Chairman Pombo and Congressman Cunningham. My name is Bob Fletcher, and I am the president of the Sportfishing Association of California, known as SAC. SAC is a non-profit political organization that for over 30 years has represented the interests of the commercial passenger fishing vessel fleet in Southern California.

The SAC fleet carries close to 750,000 passengers a year on 175 different sportfishing boats. I am also here today representing the interests of the members of the Golden Gate Fishman's Association from San Francisco, and the members of the Recreational Fishing Alliance nationwide.

SAC, GDFA, and RFA, are deeply grateful to you, Congressman Pombo and Congressman Cunningham, and Subcommittee Chairman Gilchrest for agreeing to hold this field hearing in order to hear testimony on the crisis, and I say again crisis, facing anglers in California from the growing populations of pinnipeds on the West Coast.

The population of California sea lions and Pacific Harbor seals continues to grow, and individual animals continue to grow more aggressive in their interactions with anglers, boaters, swimmers, and crews, and we need your help through changes in the Marine Mammal Protection Act to begin to take control of this terrible problem we face.

Over the years the SAC organization has spent literally tens of thousands of dollars and much of its time in an effort to find and develop an effective, non-lethal deterrent device that will allow members of the SAC fleet to be able to co-exist with these growing hordes of problem pinnipeds.

One particular unit developed by a company here in San Diego showed real promise. The company, known as Pulse Power Technologies, Incorporated, had made an experimental deterrent device that appeared to deter the sea lions, while not affecting fishing.

With the help of NOAA fishery staff in the Southwest region, we applied to the California Coastal Commission to get approval to begin that sea testing to determine how effective it might be. We never got on the water with that unit.

The coastal commission voted down our request and denied our application for at-sea testing. The commission in essence ignored the pleas of the fishing industry in favor of pinniped populations which are now believed to be above historic levels.

If we are ever able to get control of this problem, we need to stop bending over backwards to protect exploding sea lion populations and try to find some reasonable methods to control their attacks on our citizens.

I say attacks and they continue to occur and I will go into some detail. A clear example comes from Central California. The harbormaster of Port San Luis stated that sea lions had invaded their docks, and when approached the sea lions would growl at us, and even sometimes charge toward us if we get too close.

The harbor staff has tried to deter the creatures, but after a few days of squirting water, making noise, yelling, clapping hands, throwing soft projectiles and the likes, the mammals ignore us and don't leave the docks. Clearly a case where if there is no pain, you have no gain.

As many marine mammal experts agree, that unless you can approach the pain threshold with your deterrence, you cannot effectively deter these intelligent animals. To make these matters worse, increasingly aggressive California sea lions have more recently began to attack members of the public.

A swimmer off Port San Luis was bitten in the calf by a sea lion. He received a 3 inch laceration on the back of his leg. A fisherman was attacked when a sea lion swam aboard his boat. The animal bit him in the thigh, causing a significant injury.

A sea lion came out of the water and bit a crew member in the hand while the individual was walking down the dock carrying a fish. Finally, there was a recent case of a seal lion at a sport fishing dock that was preventing passengers from boarding the boat.

As a passenger would approach the sea lion would jump out of the water, bearing its teeth, and preventing the angler from boarding. It took 20 minutes to drive the animal away. NOAA Fisheries needs to be given legal authority to changes in the MMPA to take actions to identify and then effectively deter these problem animals, so as to again put the fear of man into them, allowing our citizens to co-exist with these very abundant populations, and once again allow them to enjoy their ocean experience.

In closing, SAC wants to compliment Congressman Gilchrest and Congressman Pombo on the introduction of H.R. 2693, which would require the Secretary to conduct research on the non-lethal removal and control of nuisance pinnipeds.

As the California State government is currently in fiscal meltdown, our only hope is that the Federal Government can work to find some reasonable way to once again allow us to enjoy our West Coast ocean waters without the constant harassment by these hordes of aggressive nuisance pinnipeds. Thank you very much.

[The prepared statement of Mr. Fletcher follows:]

Statement of Robert Fletcher, President,
Sportfishing Association of California

Dear Chairman Gilchrest & Members:

My name is Robert Fletcher, and I am the President of the Sportfishing Association of California (SAC). SAC is a non-profit political organization that for over thirty years has been representing the interests of the commercial passenger fishing vessel (CPFV) fleet in southern California. The SAC fleet of vessels runs local and long-range sportfishing, sport diving and natural history excursions, and carries close to 750,000 passengers a year, and the SAC live bait harvesting boats provide

live bait to the sportfishing fleet and to the huge private boat fleet that fishes off the California coast.

SAC is deeply grateful to House Resources Committee Chairman Pombo, and to Subcommittee Chairman Gilchrest, for agreeing to hold this field hearing in order to receive testimony on the crisis facing the marine fishing & boating community. California sea lions and pacific harbor seals continue to grow in numbers and in the aggressiveness with which they harass sport and commercial fishermen, sport divers, swimmers and boat owners. These robust populations of pinnipeds are resulting in some animals that are out of control, and we need your help to find ways to cope with these aggressive problem animals

For many years, SAC has spent money and time in an effort to find and develop an effective, non-lethal deterrent device that will allow members of the SAC fleet to be able to "co-exist" with the increasing hordes of pinnipeds. One particular unit, developed by a company here in San Diego, initially showed real promise. The company, known as Pulse Power Technologies, Inc., had made an experimental deterrent device that appeared to deter sea lions without scaring away the fish. With the help of NOAA Fisheries staff in the southwest region, we attempted to get approval from the California Coastal Commission to begin at-sea testing to determine how effective it might be.

Unfortunately, the Coastal Commission disagreed with our application and denied our request for a consistency determination, stating that the unit could potentially harm a marine mammal. The Commission, in essence, ignored the pleas of the fishing industry in favor of pinniped populations that are now believed to be above historic levels. If we are ever to get control of this interaction problem, we need to stop bending over backward to protect these exploding populations of marine mammals and try to find some reasonable methods to control their attacks on our use of our ocean and its resources.

The Harbormaster in Port San Luis, in comments I have attached to my testimony, stated that, "When approached, the sea lions will growl at us and even sometimes charge towards us if we get too close"..The Harbor staff has tried to "deter" these creatures, but after a few days of squirting water, making noise, yelling, clapping hands, throwing soft projectiles and the likes, these mammals ignore us and do not leave the docks." Clearly a case of no pain, no gain, and many marine biologists agree that unless you approach the pain threshold, you cannot effectively deter these animals.

To make matters worse, increasingly aggressive CA sea lions have more recently begun to attack members of the public. A swimmer off Port San Luis was bitten in the calf by a sea lion. He received a three-inch laceration on the back of his leg. A fisherman was attacked while seated in his boat. The animal bit into his thigh causing a significant injury. A sea lion came out of the water and bit a crewmember in the hand while the individual was walking down the dock carrying a fish. Finally, there was a recent case of a sea lion at a sportfishing dock that was preventing passengers from walking down a dock to a sportfishing boat. As a passenger would approach the boat the sea lion would jump out of the water, baring his teeth at the individual, preventing him from boarding. It took 20 minutes to scare the animal away.

Clearly, the competition between individuals of this exploding CA sea lion population is forcing some animals to modify their behavior in ways that threaten man's enjoyment of the ocean environment. You will hear from marine mammal experts that the majority of the conflicts stem from a small number of "problem" animals, and unless Congress begins to understand the threat posed by these "bad boys", the attacks will continue and perhaps become truly life threatening. NOAA Fisheries needs to be given the authority to take actions to effectively deter these problem animals, to again put the fear of man into them, so that our citizens can co-exist with these abundant populations of CA sea lions and Pacific harbor seals.

In closing, I want to thank Subcommittee Chairman Gilchrest for introducing H.R. 2693, and Chairman Pombo for agreeing to this hearing. On behalf of the sportfishing industry I want to specifically support Section 7 of Congressman Gilchrest's bill, which requires the Secretary to conduct research on the nonlethal removal and control of nuisance pinnipeds. As California state government is currently in fiscal meltdown, our only hope is that the federal government can work to find some reasonable way to once again allow us to enjoy our west coast ocean waters without the constant harassment by the hordes of nuisance pinnipeds.

Mr. POMBO. Thank you.

Mr. Emerson

STATEMENT OF FRANK T. EMERSON,
FISHERMEN'S ALLIANCE OF CALIFORNIA

Mr. EMERSON. Thank you, Mr. Pombo. My name is Frank Emerson, and I am the President of Fishermen's Alliance of California, a group that is a combination of commercial, recreational, and industry representatives of the fishing industry.

Thank you for the chance to present with you our position on the Marine Mammal Protection Act Reauthorization. It is our belief that the California sea lion, and the Harbor seal numbers are above historical populations, and that this condition is having an adverse effect on marine resources and the fishing industry.

We define the fishing industry in the broadest sense. Our group includes commercial, recreational, and charter vessel operators. Our definition must also include the businesses that depend on sea food harvests for food and for sport, from the hotels that house weekend anglers, to the largest processing plants.

Fishing supports businesses that are interwoven throughout our economy, and countless jobs rest on its health. In our view it is nothing less than irresponsible to give unreasonably high levels of protection to over-abundant marine mammals in favor of critically important resources.

A desire to be humane and afford safety to these marine mammals is shared by fishers and non-fishers alike. After all, the appreciation of the ocean's beauty and bounty is what lures us to a life at sea in the first place.

It certainly is not the promise of cushy hours and great benefits. We do not feel that it is desirable or humane to let this population of sea lions and seals grow unchecked until an inevitable crash, and from the testimony that you heard earlier, an occurring decline as we speak due to disease and starvation.

At a recent presentation in Monterey, California, by sea lion experts, Robert DeLong of NOAA's northwest region, stated that the current numbers are probably the highest they have been in over 3,000 years. How is this possible? Haven't we all heard about the seal hunters that nearly wiped them out?

Yes, over-hunting did occur, but sealing has been banned for over a century. What changed is that prior to the sealing years, Native Americans harvested them routinely and provided a balancing factor. The major difference is the lack of human harvest after the ban on sea lions.

For native hunters it was as normal as going to the grocery store. They depended on marine mammals for not only food, but bones served as their tools, furs as warm clothing, and intestines for lashings, and even the flippers were used for boot soles. They used the whole animal.

So humans were absolutely an integral part of the environment that the marine mammals existed in for centuries. Sea lion researchers know this from investigation of Native Indian dig sites, and what they call the mittens, and in these refuse areas, the fossilized bones of these marine mammals are found.

Also, by displacing man as a natural predator, as well as grizzly bears and wolves, which no longer prowl our coast lines, the growth rate of 6 percent doubles the population approximately every 8 to 9 years.

The current estimate of the population of California sea lions is around 240,000 animals, which does not take into account the Mexican population. What will twice that number mean to our fish docks if this population doubles again in 8 or 9 more years? What will our beaches look like then?

What will it mean to the sea lions? It is no different than deer populations that exceed the available food supply. They will all suffer. Is it not the intention of the Act to reduce the amount of suffering to marine mammals?

The critical flaw that we perceive in the MMPA is a faulty and an unworkable definition of optimum sustainable population. This concept legislates a population increase without acknowledging a host of biological and historical factors to curb populations.

Reauthorization of the Act is the perfect opportunity to thoughtfully acknowledge the reality of marine ecosystems, and predator-prey dynamics. We must accept that man is integral to the environment, and has always had an impact on marine mammals.

It is our position that to try and ensure complete protection from one species over another is not only impossible, but it is inherently flawed. The majority of fishermen impacted by sealing degradation would rather not try to have to discourage their behavior by shooting at them.

It takes time out from your daily work, and it is a hassle, and it is dangerous, and it is also not very effective because it is actually hard to shoot from a moving boat. This at one time was allowed to try to prevent this behavior and it did serve the purpose of keeping marine mammals afraid of man, and discourage this behavior.

But we would rather have non-lethal deterrence developed as others have spoken, and keep the populations in balance with the marine environment. It is our position that people should be able to protect their property from degradation, and that is a private property rights issue.

But from a resource management standpoint, we ask for population control through humane methods to maintain a balance consistent with those historical numbers. There is hardly a fisherman along our coast that cannot recount tales of fish lost to seals or sea lions, and I would just like to recount a story that I just heard recently.

I was talking to someone on my way up here actually. He was out fishing off of Monterey Bay for halibut with his son, and his son's friend, and a sea lion actually jumped in the boat with them, menacing the passengers, and a crew member or the captain of the vessel had an aluminum baseball bat that he uses to dispatch a halibut when they catch one.

They tried to shoosh this animal off the boat, and it kept aggressively pursuing the guy in the bow of the boat. So he is backing up and he is panicking, and it is a very tense situation. So he finally hits the animal in the body, and it is only momentarily deterred. It just kind of whirls around and looks at him briefly, and turns back and continues to charge the man on the bow. o he swings again, and again the same response, just a momentary hesitation by the animal. Again it pursues the man on the bow of the boat. So finally he hits it as hard as he can in the head, and the

seat collapses on the boat. Now he has got a situation that he feels terrible about.

He does the right thing and he calls the Coast Guard and they are only 10 minutes from the dock. He reports that he has a man injured, because the person has been scratched and is bleeding from his stomach, and requests medical assistance.

He drives immediately to the Coast Guard pier, and he is met by four seaman, one packing a sidearm, and instead of assisting the person injured, they immediately grill him for 5 minutes about how the sea lion was killed.

The captain became so incensed that he says that I have got a person injured here, and they refused to look at, and he requested that medical assistance be available. A more senior officer finally came down to the dock, and rebuked the junior officer, and saw to it that the person was treated, and apparently has written a report that we are trying to get.

He went to the Coast Guard office yesterday and asked for a copy and they said we don't have any copies and we don't know what you are talking about. So we are going to track this down. So in any case, that is just a clear example of what our priorities have been misapplied. It is really very discouraging. Thank you very much for listening to my testimony today.

[The prepared statement of Mr. Emerson follows:]

Statement of Frank T. Emerson, President,
Fisherman's Alliance of California

Thank you for the chance to present you with our position on the Marine Mammal Protection Act reauthorization. It is our belief that California Sea Lion and Harbor Seal numbers are above historical populations, and that this condition is having an adverse effect on marine resources and the fishing industry. We define the fishing industry in the broadest sense, our group includes commercial, recreational and charter vessel operators. Our definition must include the businesses that depend on seafood harvest for food or sport, from the hotels that house weekend anglers to the largest processing plants. Fishing supports businesses that are interwoven throughout our economy, and countless jobs rest on its health. In our view it is nothing less than irresponsible to give unreasonably high levels of protection to over abundant marine mammals in favor of critically important resources.

A desire to be humane and afford safety to marine mammals is shared by fishers and non-fishers alike. After all, the appreciation of the Oceans beauty and bounty is what lures us to a life at sea. It certainly isn't the promise of cushy hours and great benefits. But we do not feel it is desirable or humane to let this population of Sea Lions and Seals grow unchecked to until an inevitable crash. A point of carrying capacity will be reached and disease and starvation will kill thousands at a time.

At a recent presentation in Monterey Ca. by Sea Lion experts, Robert DeLong of NOAA's northwest region, stated that current numbers are probably the highest they have been in over three thousand years. How is this possible? Haven't we all heard about the seal hunters that nearly wiped them out? Yes, over hunting did occur, but sealing has been banned for over a century. What changed is that prior to the sealing years Native Americans harvested them routinely and provided a crucial balancing factor. The major difference is the lack of human harvest after the ban on sealing. For Native hunters it was as normal as going to the grocery store. They depended on marine mammals for not only food, but bones served as tools, furs as warm clothing, intestines for lashings and even the flippers were turned into boot soles. So humans were absolutely an integral part of the environment that marine mammals existed in. Sea Lion researchers know this from investigation of Native Indian archeological dig sites. In the refuse areas around the camps the fossilized bones of many types of marine mammals are found.

By displacing man as a natural predator, and removing other land based carnivores such as Grizzly Bears and Wolves, etc., the stage was set for our coastline to experience a steady growth rate of 6%, or a doubling every 9 years. The research-

ers currently estimate the population of Ca. Sea Lions at around 240,000 animals. What will twice that number mean to our fish stocks? What will it mean to the Sea Lions? It is no different than deer populations that exceed the available food supply, they will suffer.

Is it not the intention of the Act to reduce the amount of suffering of marine mammals? The critical flaw that we perceive in the MMPA is a faulty and unworkable definition of "Optimum Sustainable Population". This concept legislates a population increase without acknowledging a host of biological and historical factors that curbed population. The reauthorization of the Act is the perfect opportunity to thoughtfully acknowledge the reality of marine eco-systems and predator/prey dynamics. We must accept that man is integral to the environment and has always had an impact on marine mammals. It is our position that to try and insure complete protection for one species over another is not only impossible, it is inherently flawed.

The majority of fishermen impacted by Sea Lion depredation would rather not have to try to discourage the animals' behavior by shooting at them. We would rather have non-lethal deterrents developed and keep the populations in balance with the marine environment. It is our position that people should be able to protect their property from depredation, and that is a private property rights issue. From a resource management standpoint we ask for population control through humane methods to maintain a balance consistent with historical numbers.

There is hardly one fisherman along our coast who cannot recount tales of fish lost to sea lions or seals. The salmon trollers in Monterey Bay at times have to quit fishing completely because every fish hooked is lost to sea lions that follow close behind. This fluctuates with the time of the year and how many fish are being caught. When fishing is fast and furious you stand a better chance of landing the fish hooked. On average or slow days the sea lions will eat nearly every salmon hooked before you have a chance of landing them. When considering the impact to charter fishing operators the losses can be difficult to quantify yet are equally devastating. The fuel and time lost due to relocating away from sea lions, the captain working hard to find a productive spot only to be found by sea lions again. Customers will call the business and ask if the sea lions are "in", and if so they will not book a trip. Why make the drive, some are coming from communities a half days drive away, only to be robbed of the fish you work hard to catch? It is impossible to calculate the true loss to the sport fishing industry due to discouraged clients. The same is true for private boaters with sizable investments in boats and equipment.

How can we break the cycle of rogue animals that learn this unnatural feeding behavior? We have been obtaining small grants from local State F&G commissions for almost 8 years now to fund studies conducted by Moss Landing Marine Labs. These were sometimes matched by other agencies and include interactions between fishers and sea lions, dietary analysis and population monitoring. These were all conducted by MLML under the direction and oversight of Dr. Jim Harvey PhD.

In our current study the goal is to learn exactly what triggers a sea lion to locate a hooked salmon, meaning the hydro-acoustic and visual signals. This was dubbed the "Cues Project" and the field observations were begun this year in Monterey Bay. Using underwater digital video cameras and hydro-acoustic recordings we hope to be able to devise technology that can deter such human and sea lion interactions. This would be a win/win in our estimation, good for the fishers and good for the sea lions. If such technology is developed to the level of practical application it could be made available for the commercial sector as well as the recreational. If the depredation activity is continuously discouraged those animals that have never learned the behavior probably will not, and those that are may unlearn that habit by being forced to forage on their own. Some rogue animals may have to be lethally or otherwise removed. By allowing the interaction to continue unabated, the cycle of young sea lions being taught the depredation by the older, perpetuates the problem indefinitely.

We therefore request that reauthorization include a strong commitment to the funding necessary to develop such deterrent technology. Monterey Bay is a center of marine research and given the proximity to Sea Lion interactions would be ideal for developing this equipment. A two sided approach, maintaining a balance in the pinniped populations (through sterilization or other means) and harnessing the technological advancements in society to solve these interaction problems can surely succeed in restoring a harmonious balance between humans and pinnipeds.

Mr. POMBO. Thank you.

Mr. Everingham.

STATEMENT OF ROY R. "BUCK" EVERINGHAM, JR., EVERINGHAM BROTHERS BAIT COMPANY

Mr. EVERINGHAM. I would like to thank you all for allowing me to speak. The Everingham family and its crews has been dedicated to serving the San Diego community since 1951. My grandfather, Adolphus Charles Everingham, and Uncle Chuck Everingham started working for Mac's Bait Business in the late 1940s. Upon my father's—Roy R. Everingham, Senior—return from several trips tuna fishing in 1948, he started fishing for Mac's Bait.

My family purchased the company in 1951 and incorporated in 1963. I started working for the company in 1965 and purchased the equipment from my father in 1994. I am a third-generation of Everinghams to own the company.

As a commercial fisherman for 38 years, and an aerial observer for 15 years, I have been on or over the Pacific Ocean throughout the population increase of the sea lion. I have watched the sea lion change from having a fear of man to totally dominating the environment we are forced to share.

As the population has grown the attribution to our holding pens, receivers, nets, barge and boat crews have steadily increased. Eight years ago, we started to lose a large percentage of live bait we store.

The conditions were so bad that we lost 95 percent of our live fish stock in 1 to 2 weeks. The sea lions would gather around one receiver, while one would blow its air directly under the middle of the bait receiver bottom. This simulates a depth charge going off in the receiver, driving the fish out the cracks to the waiting sea lions.

After many complaints and threats from my best customers, and months of research and planning, I came up with the best and cheapest method of diverting air from the sea lions. The cost was $800 per receiver, and with 128 receivers, for a total cost of $102,400.

The problem was semi-cured, but the sea lions have the ability to learn and adapt. They learned to open the cracked lids and ram the side of bay receivers, punching through 1-by-6, and 2-by-4, and 4-by-4 framing, to get to the bait.

The damage the sea lions caused make it necessary to haul the receiver out of the water on to the maintenance barge at a cost of $800 to $3,000 per receiver to repair and return to the water of 1-to-2 receivers per month.

Due to the sea lions hanging out on top of the receivers, 1-to-3 lids are broken per week, at a cost of $80 to $400 per lid to repair. Damage to the netting and poles for our crowders, 1 to 2 poles per month, at a cost of $150 per pole, and repairs to the webbing of $25 to $250, depending on the amount of damage to the webbing.

I see that as an ongoing problem that with the present laws will only get worse. The interaction with my employees and the fishing public is a recipe for disaster if some control is not implemented.

One of our maintenance barge crew has already been severely mauled, laying both the upper and lower part of his hand open to the bone from a sea lion bite, requiring 4 months of rehab.

We have contacted the controlling agency, the National Marine Fisheries Service Enforcement, and no action has been taken. They

refuse to deal with the problem animal, and in fact I have talked to them about deterrence, and they can't even agree amongst themselves which would be legal to use.

Twice before when I have asked NMFS Enforcement for help, they have not been responsive and have been unwilling to help. At this time, we are dealing with an 800 pound sea lion that is pushing employees, customers, with his chest while growling and snapping to gain entry to an open receiver.

It is only a matter of time before someone is seriously hurt. We called the National Marine Fisheries Enforcement Agency in San Diego, and their recorder said they would be back in a week-and-a-half. Since NMFS is the controlling agency, and the California Fish and Game cannot act, and the NMFS is MIA, what can we do?

I feel that this is unacceptable. The same large sea lion is also boarding small boats fishing in the bay looking to steal their catch. This is very dangerous for the vessel, and for the occupants. Small vessels can be easily capsized by an 800 pound sea lion and the occupants could be seriously mauled.

Farmers and cattlemen are not forced to work in this type of environment. If these are the conditions that we are forced to work under, it would only be fair to reinstate the mountain lion and the coyote to our downtown areas so all Americans could work under equal conditions.

Of our three vessels fishing for bait are up against difficult odds. Trying to find schools of bait with sonars and fathometers is difficult enough without 50 to 100 sea lions following them and jumping on to every they locate.

One must set the nets quickly, leaving little time for tracking the schools and getting their direction, making setting the net more of a gamble. Many times we must dump half or the whole loads from our nets because 50 to 100 sea lions per boat are in the net making the bait quality so bad that it won't live and they must locate and set another school.

Not to mention that this many sea lions in the net makes it very difficult to keep the schools in the net while pursing. There is also continuous damage to the sack portion of the net, making it necessary to make repairs. In addition to the above, due to the increased sea lion population, there has been a large increase in the Great White attacks along the San Diego coast.Thank you for your time and consideration.

[The prepared statement of Mr. Everingham follows:]

Statement of Roy R. Everingham, President, Everingham Bros. Bait Co.

The Everingham family and its crews have been dedicated to serving the San Diego community since 1951. My Grandfather (Adolphus Charles Everingham) and Uncle (Chuck Everingham) started working for Mac's Bait business in the late 1940's. Upon my fathers (Roy R. Everingham Sr.) return from several trips tuna fishing in 1948, he started fishing for Mac's Bait. My family purchased the company in 1951 and incorporated in 1963. I started working for the company in 1965 and purchased the equipment from my father in 1994. I am the third generation of Everinghams to own the company.

As a commercial fisherman for 38 years and an aerial observer for 15 years, I have been on or over the Pacific Ocean through out the population increase of the sea lion.

I have watched the sea lion's change from having a fear of man to totally dominating the environment we are forced to share.

As the population has grown the attrition against our holding pens (receivers), nets, barge and boat crews have steadily increased. Eight years ago we started to loose a large percentage of live bait we store.

The conditions were so bad we lost 95% of our live fish stock in one to two weeks. The sea lions would gather around one receiver while one would blow its air directly under the middle of the bait receiver bottom. This simulates a depth charge going off in the receiver, driving the fish out the cracks to the waiting sea lions.

After many complaints and threats from my best customers and months of research and planning, I came up with the best and cheapest method of diverting the air from the sea lions. The cost was $800 per receiver with 128 receivers for a total cost of $102,400. The problem was semi cured.

But the sea lions have the ability to learn and adapt. They learned to open the crated lids and to ram the side of the receivers, punching through 1x6, 2x4's and 4x4's framing to get to the bait. The damage the sea lions cause make it necessary to haul the receivers out of the water onto the maintenance barge at a cost of $800 to $3000 per receiver to repair and return to the water at a rate 1 to 2 receivers per month. Due to the sea lions hanging out on the top of the receivers 1 to 3 lids are broken per week at a cost of $80 to $400 per lid to repair. Damage to netting and poles for our crowders 1 to 2 poles per month at a cost of $150 per pole and repairs to webbing at $25 to $250 depending on amount of damage to the webbing.

I see this as an ongoing problem that with the present laws will only get worse. The interaction with my employees and the fishing public is a recipe for disaster if some control is not implemented. One of our maintenance barge crew already has been severely mauled laying both upper and lower part of his hand open to the bone from a sea lion bite, requiring four months of rehab.

When we have contacted the controlling agency NMFS (National Marine Fisheries Service) enforcement, no action has been taken. They refuse to deal with the problem animal. In fact when I have talked to them about deterrents they can't even agree amongst themselves what should be legal to use. Twice before when I have asked NMFS enforcement for help they have not been responsive and are unwilling to help. At this time we are dealing with an 800-pound sea lion that is pushing employees and customers with his chest while growling and snapping to gain entry into an open receiver. It is only a matter of time before someone is seriously hurt. We called NMFS enforcement in San Diego; their recorder said they would be back in a week and a half. Since NMFS is the controlling agency and California Fish and Game cannot act and the NMFS is M.I.A. what do we do? I feel this is unacceptable. The same large sea lion is also boarding small boats fishing in the bay looking to steal their catch. This is very dangerous for the vessel and the occupants, small vessels can be easily capsized by an 800-pound sea lion and the occupants could be seriously mauled.

Farmers and cattlemen are not forced to work in this type of environment. If these are the conditions we are forced to work under, it would only be fair to reinstate the mountain lion and coyote to our downtown areas so all Americans could work under equal conditions.

Our three vessels fishing for the bait are up against difficult odds, trying to find schools of bait with sonars and fathometers is difficult enough without 50 to 100 sea lions following them and jumping onto every school they locate. One must set the nets quickly, leaving little time for tracking the schools and getting their direction, making setting the net more of a gamble. Many times we must dump half or the whole load from our nets because 50 to 100 sea lions per boat are in the net, making the bait quality so bad it won't live and they must locate and set another school. Not to mention that this many sea lions in the net makes it very difficult to keep schools in the net while pursing. There is also continuous damage to the sack portion of the net making it necessary to make repairs.

In addition to the above, due to the increase in sea lion population there has been a large increase in great white shark attacks along San Diego coast.

Thank you for your time and consideration.

Mr. POMBO. Thank you.

Mr. Rebuck.

STATEMENT OF STEVEN L. REBUCK, MEMBER, SOUTHERN SEA OTTER RECOVERY TEAM

Mr. REBUCK. Good morning, Mr. Pombo, and Congressman Cunningham, I appreciate very much that you would come here

today and schedule these field hearings. It is an honor to be here. It is my fourth time appearing on the subject of sea otters.

I wanted to correct this little sign here. It says that I am a member of the Southern Sea Otter Recovery Team. I am actually a technical consultant for abalone to the team, and it is job that I have had for about 10 years. I like it. I have been diving since 1956.

My family was in the abalone business and I was born on Santa Catalina Island in '51, and then we moved to Ocean Beach down the road here, and I went to Ocean Beach Elementary School, and I moved to Morro Bay in 1954, and I have been around the abalone fishery my whole life, and it is really wonderful. I love diving.

I brought a photograph here today. This is what I consider to be the human equivalent of a sea otter. It is a commercial abalone diver, and in my search for preparation for today I came up with a number of about 500 sea urchin and abalone divers licensed by the State of California.

My friend, Peter Halna, who is the President of the Sea Urchin Harvesters Association, a few moments ago informed me that I was incorrect. The number now is around 360. So there is about 2,500 sea otters and 360 commercial divers, and I question who is really endangered here.

Congress did a wonderful thing for us in 1986. You passed Public Law 99-625, which created a climate where we could co-exist with sea otters. We could have fishery zones, and sea otter zones, or areas, where shell fish were conserved and the sea otters were protected.

The Public Law 99-625 though changed the mandate perception that the Fish and Wildlife Service has. Their perception, and what they have told me many times, is that their job is to recover sea otters and not to protect fisheries.

Well, the way that I read the Public Law is that they were instructed to do both. Unfortunately for us, they have not been doing their job. The law was passed by Congress. The Coastal Commission approved the translocation of sea otters to San Nicholas Island, because there was a containment component, meaning that any animals that left the island or found in the management zone would be captured and returned to the parent population.

The Fish and Wildlife Service has not done that now since 1993, and we have continued to lose fishing grounds, and it has cost the coastal communities millions of dollars annually in lost fisheries.

Now, I brought a few items here. This is a red abalone, and this is about the size that commercial divers and sportsmen desire. It is 7 inches for sportsmen and 7-3/4s for commercial divers.

This is the size that the sea otter will take down to an animal of about 3 inches. This is just slightly smaller than 3 inches, but you can see that we can't really compete with this if we are obligated to take this size and otters can take any size. The abalone will continue to exist in some cases, but they don't get to the size that support a fishery.

The Fish and Wildlife Service has used many excuses why they can no longer contain the sea otters. They say, well, it was a difficult job. Well, we all knew that from the get go. When you are out looking over hundreds of thousands of square miles of ocean for

something that has a head this big, how do you find that in an ocean, in the choppy seas.

You can't, and it is very difficult, and so it was difficult, and it was predicted from the beginning, and we knew that. But the Fish and Wildlife Service persisted that they had the expertise, and the training, and the knowledge, and the capability to carry out containment.

And so the project was approved, and they have been at it now since 1987. Their next excuse was, well, there was a lack of money. They just did not have enough money to carry out the containment component. Well, sorry. We didn't go for it in the first place, and they obligated themselves to carry out.

We understand that they were taking money from the sea otter project and putting it into the condor project. Well, they tell me now that they have $300,000 a year in their annual budget, and I asked them where does that money go. Does it go to research? No. It goes to salaries.

So that's nice. I would like to have one of those jobs, too, but while they lose their job or if I lose my job, they seem to get promotions, and retirements, and lots of good things.

The Coastal Commission advised the Fish and Wildlife Service in 1999, and their letter is in my written comments, that the translocation project was no longer consistent with the California Coastal Management Plan. That means that the project is not consistent with the Coastal Zone Management Plan.

So here we have an agency that is in violation as I see it of two Federal laws, and a significant State law, and it doesn't seem to matter. They just do whatever they please. Recently the State of California and commercial fishermen that fish the Channel Islands have agreed on reprotected areas.

That 25 percent of the Channel Islands are going to be set aside for being reprotected areas, and to enhance things like abalone. This won't happen with sea otters, and so what I am asking you today is that we somehow continue Public Law 99-65, and that Congress require the Fish and Wildlife Service to live up to their commitments.

They have to or otherwise we are not going to have our wonderful fisheries, our abalone, sea urchin, which is a huge export fishery; the lobster fisheries are in jeopardy, and the crab fisheries are in jeopardy, clams. Almost 60 marina vertebrates are food items for sea otters.

So I have no hard feelings for the sea otters, but I would really like to find a way as Mr. Fletcher said to co-exist with these animals. I thank you again for coming.

[The prepared statement of Mr. Rebuck follows:]

Statement of Steven L. Rebuck, Member, Sea Otter Technical Consultant Group, Southern Sea Otter Recovery Team

When I last appeared before the Subcommittee on Fisheries Conservation, Wildlife and Oceans, October 11, 2001, I attempted to demonstrate through State of California documents how the U.S. Fish and Wildlife Service (USFWS) sea otter program in California has failed. This failure violates a number of state and federal laws. USFWS also violates a 1987 Memorandum of Understanding (MOU) between USFWS and the California Department of Fish and Game (CDFG) and Federal Rulemaking.

In 1986, Congress authorized the USFWS to capture sea otters and translocate them to San Nicolas Island, Ventura County. Public Law 99-625 allowed the USFWS to create a separate population of sea otters, a primary objective of the 1982 Southern Sea Otter Recovery Plan. Previous to this law, the "taking" of sea otters in California was illegal under provisions of the Marine Mammal Protection Act (MMPA). USFWS plans to translocate sea otters in California began about 1979.

USFWS has repeatedly told fishermen and others their congressional mandate was to recover the sea otter in California, not to protect fisheries. PL 99-625 clearly amended this mandate.

A mapping study funded by USFWS and the Marine Mammal Commission (MMC) in 1984 by James Dobbin Associates found that a translocation of sea otters to San Nicolas Island would have the least economic impacts of sites under consideration. However, if sea otters were not contained to San Nicolas Island, economic impacts would be the greatest of any site under consideration.

> "Of all four zones, it appears that San Nicolas Island may provide the least conflicts with shellfisheries considering simultaneous both existing commercial and sport fisheries. This assuming that the animals will disperse throughout the Channel Islands. Should dispersal take place to other island shelves such as the northern archipelago, (San Miguel, Santa Rosa, Santa Cruz, Anacapa) and Santa Barbara Island, conflicts arising from the selection of San Nicolas would be greater (in economic terms) than conflicts arising from dispersal from other zones. Dispersal outside the other zones would also affect the magnitude of conflicts with existing commercial and sport fisheries." (EXHIBIT 1)

Dispersal and related economic impacts is what has taken place since 1987 and especially since 1993 when the USFWS abandoned the containment component of the translocation.

Our former Congressman, the Honorable Robert Lagomarsino, stated in a 1998 letter that:

> "I believe it is a contempt of Congress for U.S. Fish and Wildlife to not carry out the law by recapture of sea otters." (EXHIBIT 2)

USFWS has also demonstrated contempt for the State of California by ignoring obligations they made to protect fisheries south of Point Conception, Santa Barbara County.

The California Coastal Commission (CCC) advised USFWS in 1999 that the translocation program was no longer consistent with the California Coastal Management Program (CCMP) as required by the Coastal Zone Management Act (CZMA). The establishment of a "no-otter/management zone" was mitigation for the fisheries and due to this mitigation, the CCC approved the translocation in 1987.

> "Implementation of a management zone was a critical element of CD-10-87. In its concurrence, the Coastal Commission found that adverse commercial fishing impacts at San Nicolas Island projected to be caused by the otter translocation effort would be adequately mitigated by implementation of the management zone (i.e., the "no-otter zone)."
>
> "The Draft Biological Opinion states that the USFWS will allow the otters in the management zone to remain to remain in place pending its decision on the future of the translocation and containment programs. CD-10-87 is clear that if the mitigation program (i.e., implementation of the management zone) fails, then the USFWS needs to seek further federal consistency review. Thus, the decision by the USFWS to no longer maintain the 'no otter' zone triggers the need for a new federal consistency review to determine if the project continue to be undertaken in a manner consistent with CCMP. The USFWS should submit this matter soon in the form of either an amendment to its existing consistency determination or a new consistency." (EXHIBIT 3)

The termination of the containment component of the translocation program has cost coastal communities, south of Pt. Conception, millions of dollars in lost fisheries. If fishery protections afforded by PL 99-625 are lost, over time, several valuable fisheries: sea urchins, crab, lobster, and set-net fisheries will be impacted. CDFG has estimated these potential multiplied losses at: commercial fisheries, $73,800,000; recreational fisheries, $ 150,400,000; and oil and gas $12,600,000,000. (EXHIBIT 4).

This scenario has been opposed by the County of Santa Barbara (EXHIBIT 5), the California Fish and Game Commission (CFGC (EXHIBIT 6) and CDFG (EXHIBIT 7).

The USFWS established a Sea Otter Technical Consultant Group (SOTCG) to assist the Southern Sea Otter Recovery Team (SSORT) in August 1993. The SOTCG has not met since 1999. The SOTCG is made up of the environmental community,

oil and gas industry, recreational fishing, commercial fishing and the State of California. A 1995 list occurs in the 2003 Final Revised Recovery Plan of the Southern Sea Otter.

On February 27, 2003 the USFWS met with fishermen in Ventura, California to discuss the Final Revised Recovery Plan and options. Indication was given that USFWS was conducting similar meetings with others. On June 11, 2003 sea otter coordinator, Greg Sanders met with the Marine Interest Group (MIG) at Morro Bay, California to discuss the status of sea otters, the translocation and the 2003 Revised Recovery Plan. Why USFWS has not better used the SOTCG is not clear.

Concerning the status of abalone, all commercial and recreational abalone fisheries, south of San Francisco were closed in 1997. One species, white abalone, Haliotis sorenseni, was listed as endangered May 29, 2001. This species occurs out to two hundred feet of water; beyond the limits of compressed air diving, but not beyond the foraging capability of sea otters.

California Cooperative Fish Investigators (CALCOF) reported on the problems associated with sea otters and white abalone in 1999:

> "During 1998, about 100 sea otters moved into southern California between Point Conception and Santa Barbara. These animals are mostly males, which range great distances. They move back into their northern territory during mating season, but will probably return to southern California again later. Persistent occupation and continued immigration into southern California could have serious ramifications for the recovery of the abalone resource and for other invertebrates as well. Several abalone species, including green, pink, and possibly white, are at such low densities that continued foraging by sea otters—in combination with the cumulative effects of predation, environment, and anthropogenic factors—could extirpate them." (EXHIBIT 8)

Following the translocation of sea otters to San Nicolas Island, beginning 1987, red abalone landings declined. According to CDFG published data, San Nicolas Island produced 41% of regional (Pt. Conception to Oceanside) red abalone, Haliotis rufescens, landings in 1987, 30% in 1988, 12% in 1989 and 3% in 1990. (EXHIBIT 9)

In 1999, the Commercial Fishermen of Santa Barbara, Inc. and the California Abalone Association, Inc. sued the Department of the Interior (DOI) and USFWS over the failure to contain sea otters in the no-otter/management-zone. (EXHIBIT 10). However, fishermen were unable to sustain the lawsuit.

Another group of central California fishermen recently lost a lawsuit to preserve their halibut and sea bass fishery due to presumed take of sea otters.

The sea otter translocation to San Nicolas Island had many problems. A number of commitments published in the Federal Rulemaking for the project never occurred. An 800 phone number to report otters in the no-otter/management-zone never happened. Nor did promised weekly aircraft surveys. Boats and crews were not reliable. By comparison, CDFG did a far better job and actually captured the majority of sea otters in the no-otter/management-zone.

Although the USFWS and CDFG had a signed MOU identifying management and research objectives (EXHIBIT 11), USFWS has failed to operate in good faith. The sea otter program conducted by USFWS in California can be characterized as willful neglect.

The General Accounting Office (GAO) reported in 1981 that USFWS had not informed the State of California, nor MMC of their intentions to translocate sea otter to San Nicolas Island. (EXHIBIT 12).

Previous translocations had problems. In 1969 and 1970, USFWS translocated 59 Amchitka, Alaska sea otters to Washington state. In 1970 to 1971 total of 93 Amchitka sea otters were translocated to Oregon. The major problem with this translocation was that Alaskan sea otters were introduced to Southern sea otter territory. While the Washington population thrived, the Oregon population dispersed. (EXHIBIT 13). It is quite possible Alaskan sea otters entered the California population following this translocation

CONCLUSION

The USFWS has created a climate in California where the future of shellfish and other fisheries is uncertain. Although Congress has created legislation whereby shellfish resource are conserved and sea otters protected, the USFWS has not cooperated with the State of California to co-manage these resources.

Without Congressional Oversight, the State of California will continue to lose valuable invertebrate resources and the human use fisheries they support.

The State of California recently established Marine Protected Areas (MPAs) on 25% of the northern Channel Islands. This is an investment in the future of fish-

eries. Without controls on the sea otter, this investment will come to fruition. These 125 square miles of MPAs (no-fishing or limited fishing) occur in the no-otter/management-zone.

The State of California, commercial and recreational fishermen desire a continuation of PL 99-625 and "zonal-management" of sea otters. This will likely require reconfiguration of the no-otter/management-zone. This will also require a more cooperative USFWS with a focus on problem solving and co-existence between sea otters and fisheries.

Mr. POMBO. Well, thank you. I thank the entire panel for your testimony, and Mr. Rebuck, one of the things that has been in the news lately has been the—that certain populations of abalone are endangered, and I know that off the coast just north of here they were talking about that particular population was very endangered.

Does the increased population on the pinnipeds, and sea lion seals, and their ability to dive and take the abalone, does that lead to part of this?

Mr. REBUCK. Well, the pinnipeds wouldn't take the abalone, but the sea otters would.

Mr. POMBO. The sea otters.

Mr. REBUCK. Yes, they would, and in fact the California Cooperative Fish Investigations, which is known as CALCFI, published in their report in 1999, and it is in my written comments, that if otters were allowed into Southern California that it could exculpate some of these abalone populations.

There is eight abalone species common to California. These ones are red abalone. These are kind of like fleas. They are really hard to eradicate. The other species—white abalone, which is listed as an endangered species—is common in this area, or formerly common.

I supported that listing, and I wrote a letter because I wanted to see better science in looking for these populations that still may exist, and they do exist. But there are other species. The pink abalone and green abalone, which are also potential candidates for the list.

This is a black abalone, *Haliotis cracherodii*. That has been taken by a sea otter. I can't fish this, and this is sublegal to the size that I would fish if I was able to.

Mr. POMBO. You can't fish it because?

Mr. REBUCK. Well, there is a prohibition on all abalone fishing now south of San Francisco to allow for recovery of the stocks. These particular animals were dying of a disease referred to as withering syndrome. It is a virus that affects these animals not due to fishing. Their declines were not due to fishing.

Mr. POMBO. Thank you.

Mr. REBUCK. Yes, sir. Thank you.

Mr. POMBO. Ms. Merryweather, obviously the whole case in La Jolla has gotten attention, and one of my former colleagues, Brian Bilbray, who came marching into my office a few weeks ago with a stack of newspaper clips, and they are all involved the children's pool in La Jolla, and was quite excited about what was going on, and what the impact had been.

And I am glad that you had the opportunity to come in and testify, and talk to us, and I am a little bit confused as to the imple-

mentation of the Marine Mammal Protection Act, and we have testimony from different people who say that we tried to chase them off the docks, and we chased them out of the boats, and trying to protect our private property, and protect our boats, and protect our public lands.

And yet in your case, it appears that they are telling you that you can't do that.

Ms. MERRYWEATHER. In the case in La Jolla, this is a—at one point we had something called seal rock, and they put a sort of invisible protection around it. And they told everybody don't go anywhere near this rock.

Well, it used to be that when the kids went out, and divers went out, and surfers went out, they would like hurl some seaweed at the seals, and a couple would get off and a couple would get on.

Once they put this protection around this rock, so many seals got on the rock that a couple of them went over to the children's pool, and once they got over to the children's pool, some sort of very zealous seal lovers got over there, and told anybody that if you get near these seals I am going to have you arrested, and you will have a fine, or you will be imprisoned.

So people were like, well, I sat on this beach my whole entire life. What is the deal. And they are going, well, if you make that seal raise his head, you are going to get a fine or you are going to get arrested.

So slowly but surely due to the fact that people, and the seal people, sort of were having it out every day; and then the lifeguards got involved, and then the lifeguards finally said that we don't want to deal with this.

So what they did is that they erected with the help of the city a rope, which has no coastal permit, separating the seals from the people. And the things that happened there—I mean, there was a situation where a surfer who was outside lost his board, and the only way he had to come in was at the children's pool.

He came in and he would have drowned had he not been able to come in there. He gets into his car, and he gets home, and a couple of days later and he has a $1,000 fine because the people who were watching over that property over there turned these people in continually.

To me one of the most precious things that we probably have in California are our rights to beach access, and we are being denied it in every possible way. And in this case, the children's pool to me, because it is a man-made pool, and it is a natural site, it is even sort of more off-bounds than I think that it should be.

This is a huge piece of beach for us in La Jolla, and it is a very special piece of beach for us, and now as I saw certain months of the year—like right now there is no children, and there are no seals. It smells badly. It is just a mess in every possible way.

And the other thing about the children's pool is that it is the origination of diving in all of Southern California. The original gogglers came out of that pool, the children's pool. It has a lot of history, and it is just a crying shame to see what has happened to it.

Mr. POMBO. It does not—and maybe I can ask our next panel this question, but it does not seem to be consistent enforcement to me.

Ms. MERRYWEATHER. It is not at all. There is a situation where tourists can stand on the wall and clap, and bark at the seals, and make them go in the water and nothing happens to them.

But a diver who—we have a friend who is a diver, and who swam with the seals for 15 years. He has two of them who are his buddies. He gets in the water, and they jump in the water with him, and they swim with him. He gets fined continually.

It is so difficult to understand what the rules and regulations are. I mean, even when they said, well, maybe you shouldn't have fireworks this year because you are going to disturb the seals, it is just really hard for us to figure can you be on the beach, and you can't be on the beach.

The seals have to die there and you can't pick them up. They are going to bury them there. The lifeguards themselves, most of them that I have talked to would much rather be watching the children than the seals, and we are about to erect something like a $2 million lifeguard tower there.

So the thing is out of hand, and it is ridiculous, and I think that the rules just have to be eased up on, and in that situation with the children's pool may be changed to something else. Because as I said, it has made it all the way to spoof t.v., and it has been in every paper that you can imagine.

It has been all over the country. I have had people send me things from Germany, and from France, where people are just laughing about this, and this is just ridiculous.

Mr. POMBO. Well, over the past several years, I have had different people who have come in and complained about the enforcement, or implementation, and the way that the Act was being defined and implemented.

And I think it is a case like yours that because it affects so many people, and it is a different group of folks that it affects, all of a sudden people begin to really focus on what some of the shortcomings are in the implementation of the Federal law.

Ms. MERRYWEATHER. Yes, and one of the points that I would like to make is that I feel that if I was in nature with the seal, and I came down to the beach, and I wanted to go in the water, and that scared the seal and made him go in the water, that is his natural behavior, and that is my natural behavior.

In this instance, when they say that I am going in the water is affecting that seal's natural behavior, it's not. That is his natural behavior. So the whole thing to me is just ridiculous.

Mr. POMBO. That is an interesting way to look at it. As I am sure you are aware, we have been struggling with definitions and what harassment means, and the Subcommittee Chairman, Mr. Gilchrest, and myself, have gone round and round, and round on this, in terms of trying to figure out what these definitions mean.

And every little change, a one word change in the Act seems to get everybody excited, and we are trying to figure out a way to alleviate some of these problems, and it is very difficult to work our way through this.

But, Mr. Anderson, in your particular case, you have responsibility of maintaining public facilities in Monterey.

Mr. ANDERSON. Yes, sir.

Mr. POMBO. When you or the folks that work with you chase sea lions off the docks to get to the boats, are you threatened with a harassment charge? I mean, under the Marine Mammal Protection Act, do they come to your guys and say that if you disturb these marine mammals we are going to fine you $1,000 for doing it? I mean, do you have that, or—

Mr. ANDERSON. Early in our difficulties with the sea lions, we had some of those kinds of threats. However, we were able to sit down with representatives in our area from the National Marine Fisheries, and work out a management program that did allow us to chase them off the docks.

The photograph of them on our launch ramp and so on, we put up with that for about a month because we thought that naturally they would move on somewhere else. Well, they didn't, and we finally made a decision that we would become aggressive in moving them on along.

So what we did is we had our staff go down, and we power washed the area to get rid of the mess, and within a few days they actually moved on further into our harbor, but in an areas that is virtually undeveloped. It is a beach area and so on.

So it is visible to the public, but they got out of this particular area. And I will tell you that even when we had these large groups like this, we would go in there daily and cull out the dead sea lions, and just again from a health and safety point of view.

And when you do that, they all go into the water, and it is a great show. They all rush down to the water, kind of in a stampede, and we would pick up the dead ones, and soon as we left, they came back up.

But again it sounds as though there is a total inconsistency in enforcement between Southern California and Central California. The La Jolla situation boggles my imagination. I can't understand how that has happened.

Mr. POMBO. Well, it kind of boggles all of ours as well. When Brian first brought the press clippings in to me, I couldn't figure out what they were thinking in terms of enforcement in that particular case, and obviously I have been to your city many times and my kids love going down and watching the sea lions and everything else. But it didn't look like that the last time I was there either.

Mr. ANDERSON. It does not look like that all the time, but we have had like I said three occasions where this has happened to us, but right now they have moved to a totally new area. They are on the beaches on both sides of Fisherman's Wharf, which when they first arrived there all the concessionaires on Fisherman's Wharf were elated because it was a new tourist attraction.

Well, about 72 hours later, when the stench has built up, it got to an unbelievable position. We had a major event in Monterey this past week with all of the automobiles and a major car show just adjacent to this area.

I had our staff go down and pressure wash the rocks to get as much of that fecal matter and vomit off of the rocks, and fortunately it was an off-shore breeze most of the time and so we didn't have the problem.

But now even some of the businesses on Fisherman's Wharf are extraordinarily concerned, and I suspect that you will get some let-

ters from them that we don't have the ability to totally relocate them out of the area.

And again I have to say that the biggest problem—and you have heard testimony—are the ones that become very aggressive, and these little ones, they are easy to handle. They are still very much responsive to the measures that we take.

But the older bulls, they think they own the area, and I actually have a videotape shot by CNN of a sea lion coming up out of the water after one of our harbor maintenance people on the docks in the marina. Fortunately, he was pretty quick a foot, and he got out of the way, but he would have been attacked by the sea lion.

Mr. POMBO. Thank you. Mr. Cunningham.

Mr. CUNNINGHAM. Thank you. Brian also stormed in my office and has talked about the issues, Ms. Merryweather. I am not on this committee, and I thank the Chairman for allowing me to sit in here.

But I think the thing that I have heard, and I came mostly to listen today, of the different areas. I fished with Mr. Fletcher, and I have had my bait stolen. I mean, I cast seven times and the seals, they move around hook. They don't get the hook. They just bite the fish in half, and I don't know how they do that with it moving through the water so fast.

But the thing that I picked up today I think primarily as Mr. Anderson said is the inconsistency of enforcement, or the lack of using the dollars for what it should be for public law, and the protection of the public, not just from stench, but disease, and even bodily damage from an animal.

I will do everything that I can to work with the Chairman. When you look at the folks that are turning in people for moving the seals, has anybody sat down with them and tried to have any kind of dialog?

When I came back from Vietnam, I sat down with anti-war protesters, and had some kind of dialog. I don't think I convinced them of anything, but at least there was a dialog. And these groups that are so adamant about their position, is there any movement for them, and to say, hey, we want to reach a amenable agreement on how to handle animals to protect them, and maybe even to move them.

But has there been any dialog from any of your groups with the folks who are opposed to what we are trying to do?

Ms. MERRYWEATHER. Yes, we have. In the beginning, there was a quieter, gentler group of people, who informed people about the seals. But it has become so aggressive lately that there is people who actually have fake identifications down there and pulling out fake badges, and telling people that they are going to have them arrested.

There are people who are running people to their cars and taking their license plates from them. They are taking their licenses and then turning them in. It has become very aggressive. They yell at people, and they have all but got into fisticuffs with people.

It is kind of over the top. And the sad thing is, and the other thing that I would like to mention also is the shark issue in California. Seals love to eat sharks, and they spent millions of years tracking them and—

Mr. CUNNINGHAM. And sharks love to eat seals.

Ms. MERRYWEATHER. Exactly, and they have spent millions of years trying to track them and find them, and that is another issue that we have there, and that is coming, and I just wanted to throw that in there.

And we have talked to the city, and we have talked to everybody, and it is just has become—one day it is that these are the rules, and the next day it is that these are the rules.There is sort of an ad hoc group of people who go down there and harass the people who come to the beach, because they so much want the seals to stay there.

And they are attacking swimmers, and attacking people who are just wanting to sit on the beach there. I mean, there are some German tourists who just brought their blanket, and they didn't know about anything.

They just went and sat down on the beach, and all of a sudden some guy is screaming in their face to get off the beach, and don't you know what you are doing. And they are just going like what is all this about.

Mr. CUNNINGHAM. Are there specific organizations that these folks belong to, or are they just as you say ad hoc individuals who are concerned?

Ms. MERRYWEATHER. Well, originally there was a group that was part of HUBBS.

Mr. CUNNINGHAM. Part of HUBBS?

Ms. MERRYWEATHER. Yes. They would inform people about what is the situation with the seals, and don't make them raise their head, and off of that stemmed what I would consider a much more sort of aggressive and hostile group of people, who actually harassed people.

Mr. CUNNINGHAM. But do they belong to a specific organization, or just—because I would love to sit down with them and say, hey, what we are trying to do is not harmful to the animals, but it also allows us to co-exist, and just to see if you can actually have dialog with groups like that, or are they so extreme that there is no movement whatsoever?

I would love to sit down with different groups and say, hey, let's work this thing out. Let's protect the animals, and let's also protect the public, and keep us from disease and the stench, and all the other things, too.

Ms. MERRYWEATHER. I agree. For 80 years, we have co-existed with the seals just fine, and I can remember as a child swimming with them when I was older, and my son swam with them. I mean, the people come in and the people go out. The seals come in and the seals go out. It was a nice arrangement.

But once they said that nobody could be on the beach, it just caused this nightmare that we are faced with now.

Mr. CUNNINGHAM. OK. Well, I want to thank the witnesses. To me it has been educational. As I said, I am here to listen primarily and see if I can work with Chairman Pombo. I want to tell you that you don't mess with the little guys. He is tough, and he is very principled as far as trying to do the right thing.

And he is a good friend, and I think he is a good friend of both sides of this issue if they just realized it. And I want to thank you, Mr. Chairman, for coming to San Diego.

Mr. POMBO. Thank you. Before I excuse these witnesses, I wanted to ask Mr. Fletcher a question on the increased interaction that has occurred over the years. Do you believe that that is because of the increased population, or is it just because the population has shifted to where your guys are?

Mr. FLETCHER. Chairman Pombo, I think it is a combination of the increased population and the protections that have been afforded the animals from the Act. As you indicated in your opening remarks, in some ways the MMPA is more restrictive than the Endangered Species Act, and what we have seen happen is generations of sea lions that have learned that there is no harm no foul from interactions.

And how we have at times three generations of these animals around the boats, and the older animals have taught the younger off-spring, and the younger off-spring are now becoming more and more aggressive.

And it will continue in that vain. The majority of the animals at this point are not real problem animals. But that is going to change as they learn from the older animals. So the years that have passed have seen a continual increase, and the spreading out of the kinds of interactions.

We did not have them eating all of the fish we caught, and the bait as Congressman Cunningham indicated. Now we are seeing more and more of that. The next step is that some private boats, as was mentioned, in fact see animals come aboard.

I think that is going to continue, and there will be more injuries as more and more animals learn that they have nothing to fear, and that is why it is so important that some kind of effective, nonlethal deterrent is developed before this becomes much worse than it already is, and it is very bad today.

Mr. POMBO. Mr. Everingham, you kind of walked us through what some of the challenges that you face in your business. And maybe this is an unfair question, but at what point does it become non-economic for you to continue running your business. I mean, I realize that this is a multi-generational family business, and with all of these costs on top of the normal costs of doing business, at what point can you no longer continue?

Mr. EVERINGHAM. That is a hard question to answer. There is always the chance of raising the price of bait to the public, but the sports boats are already paying I think about what they can handle. So as I stated, they adapt and learn quickly, and prior to '72, commercial fishermen were allowed to take the animals lethally that were interfering with their livelihood.

This gave them a natural fear of man, which to me I feel that the whole problem with the picture is that in the environmental scheme that man is not included; where man is a definite and integral part of the environmental scheme, and does what man does because that is what man is here for.

That has been taken out of the equation and that has allowed for this imbalance to happen. I feel to me that is the number one

thing that has caused the imbalance in the over-population, and the lack of fear of man.

They will learn very quickly to fear humans once lethal or painful deterrence are used. They adapt very quickly and they are very intelligent. I have seen some of the things that they figure out on their own. It takes them a week to days to figure out a new method to harass after investing all the money that we invested.

But we are still able to keep up with it, and we do repair our receivers. It is basically like painting the Golden Gate Bridge. You start at one end, and when you get to the other, it is time to go back and start over.

So it is a year around thing, and so everything that I stated is added to that, and on top of that which we are already doing. So I could not answer that totally to you. It is a hard question to answer.

Mr. POMBO. If you leave, then it affects the seals.

Mr. EVERINGHAM. Well, I guess we are at top of the iceberg, and I have been told by Catherine that has the Association of Sports Fishing that the sports fishing community generates about a—I think it was about a $32 billion a year income for Southern California, compared to suppliers, to boat repairs, to boat purchasing, tackle, and everything else that supports the industry. So, yes, it can be quite devastating to the California economy.

Mr. POMBO. Well, thank you. I thank this entire panel for your testimony, and it is interesting that we have similar problems and similar complaints so to speak, or challenges, from such a diverse group of folks. So I appreciate all of you coming in. Thank you very much.

I am going to excuse this panel, and invite up our second panel of witnesses. Mr. James Lecky, Mr. Robin Brown, Dr. Brent Stewart, and Dr. Doyle Hanan, if you could join us at the witness table. If I could have you all stand and raise your right hand.

[Witnesses sworn.]

Mr. POMBO. Let the record show that they all answered in the affirmative. Thank you very much for joining us today. I am going to begin with Mr. Lecky. I told you about the way the lighting system works, and if you could try to keep your oral testimony to the 5 minutes. Your entire written testimony will be included in the record. So, Mr. Lecky, if you are ready, you can begin.

STATEMENT OF JAMES LECKY, ASSISTANT REGIONAL ADMINISTRATOR FOR PROTECTED RESOURCES, SOUTHWEST REGION, NATIONAL MARINE FISHERIES SERVICES

Mr. LECKY. Thank you, Mr. Chairman. I will try and be concise so that you have opportunities to ask questions. Mr. Chairman and Congressman Cunningham, I want to thank you for opening the hearing today in Southern California, and providing me an opportunity to testify before you on issues and questions that you have raised today.

And being here to underscore the importance of developing important policies to enable NOAA Fisheries to ensure continued protection and recovery of marine mammals, while allowing the public the continued use of marine resources and facilities.

The Marine Mammal Protection Act is specific in its purpose to recover marine mammal stocks to their optimum population levels, and in accordance with that premise, NOAA Fisheries has assigned a higher priority to recovering declining and depleted stocks than it has to managing the increasing populations or populations that are already at OSP.

Now, we have used the resources and tools that were provided to us in the 1994 amendments to the MMPA to investigate and where possible resolve conflicts with pinniped populations. NOAA Fisheries' efforts to implement these measures have been hindered though by controversy and limited effectiveness of non-injurious deterrence methods.

Given the mixed results of deterrence studies and our limited funding, we focused most of our efforts on resolving conflicts and situations where there are either clear conflicts between pinnipeds and endangered salmonids, or where there are economic impacts or safety concerns from the presence of nuisance animals.

We have conducted research in a variety of areas related to this status of pinniped populations along the West Coast, and their role in the ecosystem for nearly three decades now. We have monitored trends in abundance, using aerial photographs, pup counts, and we have investigated food habits.

In 1999, we implemented a cooperative State and Federal research and monitoring program to investigate specific interaction problems, and experiment with deterrent devices. While some of the pinniped populations in the Pacific have declined and are now listed under the Endangered Species Act, the opposite is true for most of the California populations.

The California sea lion, Pacific Harbor seals, the Northern elephant seals, which you have not heard about today, they are all increasing at somewhere around the order of 5 to 8 percent a year, and they have been doing so since the early 1970s.

With regard to ecosystem impacts, we have been studying food habits for California sea lions since about 1991. The study showed that sea lions feed on a broad range of prey, but consisting mostly of small aquatic fish and squids.

Although salmon and steelhead are represented at varying levels in their diet, depending on geographic location and season, and as we heard, there are some individual animals that have learned to become adept at interacting with commercial fishing operations as well.

Coincident with the expansion of these pinniped populations, several salmon and steelhead populations along the West Coast have declined, and this coincidence has caused some interest to raise concerns about resource conflicts and impacts of pinnipeds on salmon populations listed under the ESA.

Although NOAA Fisheries has concluded that seal and sea lion predation didn't cause a decline in salmons, it has acknowledged that in some locations predation may actually be interfering with an opportunity to recover those stocks.

NOAA Fisheries is funding additional feeding studies to obtain a better picture of the total consumption of fish by pinnipeds along the West Coast. Models of pinnipeds consumption are being developed, and tested, and new sophisticated genetic techniques are ac-

tually being used to refine the identification of fish, and the numbers of fish in stomach samples.

There has also been space conflict at beaches and harbors resulting from pinnipeds moving into areas used by humans, and managing these conflicts has been difficult, primarily because criteria for deciding whether or not pinnipeds should be excluded from beaches are not clearly established, and tools for excluding them have proven to be labor intensive or ineffective.

To help stem the conflicts between human activities and pinnipeds, NOAA Fisheries has worked with the States and the fishing industry to test and evaluate the effectiveness of various non-lethal deterrence methods.

I would refer you to my written testimony for a summary of those devices, and a review of their effectiveness. In general, we have not been successful in finding an effective, long term approach to eliminating or reducing pinniped predation in most situations.

Some non-lethal deterrent methods initially look effective, but they become ineffective over time as animals either habituate to the stimulus, or they learn that the stimulus doesn't really pose a threat to their well-being.

Our interest continues to be developed to deterrent technologies that can be applied on a broad scale with little or no adverse impact on the environment, and without serious injury to pinnipeds or other marine mammals.

A promising line of research in this area was initiated at Moss Landing Research Labs that investigate basic behavioral characteristics of California sea lions, and try and identify the cues that these animals respond to in attacking those vessels, and if we can understand and identify those cues, maybe we can figure ways to mask them so that seals won't approach those vessels.

In conclusion, NOAA Fisheries would like to thank you and the subcommittee for convening this hearing today. We recognize our success in protecting pinnipeds off Washington, Oregon, and California poses complex challenges similar to those that resource managers face in the terrestrial environment.

We think that given the mandates of the MMPA, and the limits of our knowledge and capabilities that we need to proceed carefully as we move from recovering stocks to managing stocks that are at OSP in order to avoid unintended consequences.

As such, we look forward to working closely with the subcommittee to develop careful and creative solutions to the circumstances and problems that exist. That is my testimony, an thank you, Mr. Chairman. I would be glad to entertain questions.

[The prepared statement of Mr. Lecky follows:]

Statement of James Lecky, Assistant Regional Administrator for Protected Resources, Southwest Region, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Mr. Chairman and Members of the Subcommittee, I am Jim Lecky, Assistant Regional Administrator for Protected Resources for the Southwest Region of the National Marine Fisheries Service (NOAA Fisheries). Thank you for inviting me to testify before you today on issues involving interactions between increasing marine mammal populations and humans.

NOAA Fisheries administers the MMPA, the principal Federal legislation that guides marine mammal conservation policy in U.S. waters, in conjunction with the

U.S. Fish and Wildlife Service (FWS). The MMPA provides NOAA with conservation and management responsibility for more than 140 stocks of whales, dolphins, porpoises, seals, and sea lions.

The issues and questions the Subcommittee has raised for today's hearing underscore the importance of appropriate policies that enable NOAA Fisheries to ensure continued protection and recovery of marine mammals, while allowing the public use of marine resources. Although we hope to learn from the experiences that terrestrial wildlife agencies have amassed while managing increasing wildlife populations, we recognize that marine mammal management poses unique challenges that may require new approaches and technologies.

The MMPA is specific in its intent to recover marine mammal stocks to their optimum sustainable population (OSP) levels, defined by the Act as "the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element."

In accordance with this basic premise, NOAA Fisheries has assigned highest priority to the important task of the recovery of depleted or declining marine mammal populations, rather than to the management of populations that are increasing or at OSP. Although the 1994 amendments to the MMPA provided tools to investigate and resolve conflicts with expanding pinniped populations, NOAA Fisheries' efforts to implement these measures have been hindered by controversy and the limited effectiveness of deterrence methods. Given the mixed results of deterrence studies and our limited funds, we have focused our deterrence efforts on situations where there are either clear conflicts between marine mammals and endangered salmonids, or where there are great economic impacts or safety concerns from the presence of nuisance animals.

I have structured my testimony to address the specific questions outlined by the Subcommittee regarding the status of west coast pinniped populations, the nature of interactions between increasing pinniped populations and humans and their effects on the surrounding environment, and the research and testing of pinniped deterrence methods.

Cooperative Monitoring and Research Program

NOAA Fisheries implemented a cooperative state/federal pinniped research and monitoring program on the west coast in 1999 in conjunction with the Pacific States Marine Fisheries Commission (PSMFC), Washington Department of Fish and Wildlife (WDFW), Oregon Department of Fish and Wildlife (ODFW), and California Department of Fish and Game (CDFG). This coordinated state/federal coastwide program to study and monitor the effects of expanding populations of California sea lions and Pacific harbor seals was initiated in response to the Report to Congress: Impacts of California Sea Lions and Pacific Harbor Seals on Salmonids and West Coast Ecosystems, which NOAA Fisheries submitted to Congress in February 1999. Specific Congressional funding for this program, totaling $750,000 annually in recent years, has allowed NOAA Fisheries to conduct research and issue grants to PSMFC and to the state resource agencies to address increasing pinniped populations and their interactions with fishery resources, salmonids listed under the Endangered Species Act (ESA), and human activities.

Pinniped Population Monitoring Studies

NOAA Fisheries conducts surveys of pinniped abundance in California using aerial photographic methods. Initially, surveys focused on obtaining counts of the number of California sea lion pups that are born at the major U.S. rookeries. Pup counts are used as an index of population size and have been collected every year since 1975. However, during El Nino conditions pup counts decrease greatly and are a poor index of the entire population. To account for this, the agency began to conduct counts of all the hauled out sea lions (pups, juveniles and adults) in southern and central California during the pupping season, in addition to conducting pup counts. It is expected that these counts will be more stable over time than the pup counts. NOAA Fisheries has also collaborated with Mexican researchers to conduct surveys of California sea lions along the west coast of Baja California and in the Gulf of California.

The agency conducted its first California state-wide survey of Pacific harbor seals in 2002. Previously, surveys in California were conducted by the CDFG, with federal funding from NOAA Fisheries, or through the PSMFC. Surveys of harbor seals in Washington and Oregon are also conducted largely by State Department of Fish and Wildlife biologists, often in collaboration with biologists from our National Marine Mammal Lab in Seattle.

Thus, the population growth and status of California sea lions and Pacific harbor seals along the U.S. west coast has been monitored for the last three decades at varying degrees. The cooperative research program on expanding pinniped populations has enabled the development of more broad scale and reliable monitoring efforts and better assessments of population status.

West Coast Pinniped Population Status

While some pinniped populations in the Pacific Ocean have declined and have been listed under the ESA (e.g., Steller sea lions and Hawaiian Monk seals), the opposite has occurred with Pacific harbor seals and California sea lions off the west coast of Washington, Oregon and California. Populations of California sea lions and Pacific harbor seals have increased at an annual rate of 5-8% since the early 1970s. Elephant seals on the West Coast also have increased at about 8% per year.

More specifically, NOAA Fisheries' stock assessments indicate the California sea lion population exceeds 200,000 animals in U.S. waters. Population trends have been based on pup counts, which decrease dramatically during El Nino periods (1983-84, 1992-93, and 1998). Pup counts in the last two years (2001 and 2002, neither of which was an El Nino year) were the same or lower than in 2000, which may be the first indicator that these populations may be finally nearing their carrying capacity. The number of total hauled-out sea lions of all age classes was also relatively constant from 2000 to 2002. However, because pup counts vary so much with environmental conditions and the time series for total abundance is short, NOAA Fisheries scientists are not confident in saying that this population is near its carrying capacity.

The Pacific harbor seal populations in Washington and Oregon exceed 42,000 seals, and the California harbor seal population exceeds 30,000 seals. Recent scientific publications by NOAA Fisheries and State scientists on current abundance and life history parameters of harbor seals in Washington and Oregon indicate that these populations are approaching carrying capacity and are within their OSP level. Additional surveys are needed to confirm that the harbor seals in California are also at OSP and approaching carrying capacity.

Ecosystem Impacts

NOAA Fisheries has been studying the food habits of California sea lions since 1981. Studies show sea lions feed on an incredibly broad range of prey, but the dominant food is small pelagic fishes and squids. In central and northern California, Oregon, and Washington, sea lion diet also includes both juvenile and adult salmonid species (salmon and steelhead), although salmonids do not appear to be the dominant food of sea lions in any area. Fewer studies have been undertaken of Pacific harbor seal feeding habits, but they appear to concentrate more on demersal (bottom living) species of fish, squid and octopus.

Coincident with the expansion of these pinniped populations, salmon and steelhead populations along the west coast have declined, raising serious concerns about resource conflicts and impacts of pinnipeds on salmon populations listed under the Endangered Species Act (ESA). As noted in the Report to Congress, although seal and sea lion predation did not cause the decline of salmonids, it may be affecting the recovery of some already depressed populations.

The assessment of impacts on salmonids has proven to be a difficult challenge because of the uncertainty and potential bias in both the assessment of predation rates and the size of fish stocks that are being impacted. In some areas, documented pinniped predation levels may be high enough to affect recovery rates of some ESA-listed salmonid populations. In other areas, the studies have allowed us to exclude predation by pinnipeds as a factor limiting recovery. Commercial and recreational fishermen have raised concerns about the impacts of predation on fish stocks important to their fisheries (e.g., white sea bass, kelp bass, barracuda, rock fish, squid). Quantifying the impact of pinniped predation on these fish stocks has proven to be difficult because the available methods of sampling the diet of seals and sea lions have biases associated with them that underestimate certain fish species and overestimate others. NOAA Fisheries is funding feeding studies to help correct those biases and to obtain a better picture of the total consumption of fish by pinnipeds along the U.S. west coast. Models of pinniped consumption are being developed and tested. Studies are also being funded to determine the species and numbers of individual fish consumed by using their genetic signature. Work is progressing rapidly in this area. However, information on abundance and population dynamics of these fish stocks is needed to assess the impact of predation.

Pinniped Conflicts with Commercial and Recreational Fisheries

The expanding populations of these two species has caused concurrent increased reports of conflicts with fisheries. In commercial fisheries, California sea lions and

Pacific harbor seals have been reported removing catch and damaging gear in the salmon troll and gillnet fisheries; nearshore gillnet fisheries; herring, squid, and bait purse seine and round-haul fisheries; and trap and live bait fisheries. This has resulted in economic losses in some commercial fisheries. Both California sea lions and Pacific harbor seals are involved in interactions with recreational fisheries coastwide, but most conflicts are attributable to California sea lions. Sea lions interact by consuming bait and chum, and removing hooked fish that are being reeled in. Fish also may stop feeding or may be scared away by the presence of sea lions. In addition, when sea lions are present, skippers frequently move their boats to other, sometimes less productive, fishing areas, incurring additional fuel costs and loss of fishing time.

Other Conflicts

There have also been space conflicts at beaches and harbors resulting from pinnipeds moving into areas used by humans. Managing these conflicts has been difficult because criteria for deciding whether or not pinnipeds should be excluded from beaches are not clearly established and tools for excluding pinnipeds from beaches and harbors are labor intensive or have proven ineffective to date.

Non-Lethal Deterrence Testing and Evaluation

To help stem conflicts that have arisen from interactions between human activities and these pinniped populations, NOAA Fisheries has worked with states to test and evaluate the effectiveness of various non-lethal measures to deter the animals from human activities. Much of the work took place in confined sites where resource conflicts were occurring (e.g., the California sea lion conflicts at the Ballard Locks and the Willamette Falls fishway) and the measures could be easily tested and evaluated on identifiable (tagged) sea lions (in contrast with open ocean water testing, which is far more difficult). Following is a description of a variety of the methods we have tested and an evaluation of their effectiveness.

Firecrackers—Underwater firecrackers (called "seal bombs") have been used broadly to disperse pinnipeds from fishery conflicts. Underwater firecrackers have been effective on a short term basis in many situations, but over the longer-term with repeated use, sea lions and seals learn to ignore or avoid the noise. At the Ballard Locks, although firecrackers were effective in reducing steelhead predation by California sea lions in the first season of use, they became relatively ineffective in subsequent years because the animals appeared to have learned to ignore or tolerate the noise, or evade close exposure to firecrackers by diving and surfacing in unpredictable patterns. Similar tolerance/avoidance of firecrackers has been observed in fisheries interaction situations with harbor seals.

Cracker shells—Cracker shells are shotgun shells containing an explosive projectile designed to explode about 50 to 75 yards from the point of discharge. Although the noise may startle pinnipeds and cause them to temporarily flee, there is usually no physical discomfort to the animals involved since the explosion is in the air or on the water surface. Cracker shells have been no more effective than seal bombs, again, because the animals have habituated to them.

Acoustic Harassment Devices (AHDs)—The AHD produces a high amplitude, pulsed but irregular "white noise" under water in the 12 to 17 kHz range that is intended to cause physical discomfort and to irritate pinnipeds, thereby repelling them from the area of the sound. AHDs have been shown to be initially effective in some situations, but their effectiveness diminishes quickly as pinnipeds learn to tolerate the noise.

Acoustic Deterrent Devices (ADDs)—The ADDs are a modification of the AHDs developed for use in deterring seals and sea lions from commercial salmonid net-pen and salmonid ranch facilities. The ADDs have omni-directional and unidirectional arrays which produce periodic sound emissions centered at 10 kHz and at higher decibel levels than the AHDs. At the Ballard Locks, an acoustic ensonified zone has been established under water in the area below the spillway dam and fish ladder, and it has been effective in deterring new sea lions from the Ballard Locks area, but has had limited effectiveness on California sea lions that repeatedly forage at this site.

Pulsed Power—This is an electrical power (arc) discharge system that generates both a compression wave and a noise similar to the ADD but at higher decibels. Shock waves are different from acoustic waves because they compress aqueous medium and are able to propagate at a higher velocity for short distances. Field testing of the pulsed power device has not occurred due to environmental concerns about the effects on other species, and concerns for effects on sea lions. Laboratory tests have shown mixed effectiveness of the devices on sea lions when operated at lower levels.

Predator Sounds—The effectiveness of predator vocalizations to frighten sea lions has not been consistent in tests by others. Pinnipeds sometimes have shown immediate avoidance responses to the projection of killer whale sound recordings, but generally they have habituated quickly.

Vessel Chase—Chasing or hazing California sea lions with a vessel proved to be ineffective at the Ballard Locks, as animals learned to avoid the vessel or swim under it. Both commercial and sport fishermen have also used their vessels in an attempt to chase seals and sea lions from their operation, but such efforts are usually unsuccessful.

Tactile Harassment—Tactile harassment involves shooting pinnipeds with non-lethal projectiles such as rubber bullets or blunt-tipped arrows. Tactile harassment has been used successfully by instilling an avoidance reaction in other wildlife species (e.g., grizzly bears and polar bears) in some situations. Blunt-tipped arrows were tested by WDFW on California sea lions at the Ballard Locks with no significant change in predation rates. Rubber projectiles discharged from a shotgun were tested by ODFW on California sea lions at Willamette Falls with limited success.

Taste Aversion—Taste aversion is a form of aversive conditioning that involves putting an emetic agent (e.g., lithium chloride) into a prey species to induce vomiting when the prey is consumed. This technique has been used on coyotes and was successfully tested on a prey specific basis with captive California sea lions. Using lithium chloride treated fish, captive sea lions were conditioned to avoid one of three prey species without affecting the sea lions' desire to eat the other two species. Taste aversion using lithium chloride was attempted on California sea lions at the Ballard Locks, but the effort was not successful.

Physical Barriers—Physical barriers have been used to prevent sea lion access to a prime forage area in front of the entrance of the fish ladder at the Ballard Locks, prevent sea lion access to net pens (predator nets), prevent sea lion access to docks (low rails on docks or fencing), and prevent harbor seals from entering a channel in the Dosewallips River where harbor seal presence was causing high coliform counts in shellfish beds. The barrier at the Ballard Locks (a large-mesh net strung underwater) was ineffective because fish passage may have been hampered by the barrier and sea lions were observed foraging on steelhead at the face of the barrier.

Predator Models—Although media reports on the use of a killer whale model indicated that it was effective in repelling seals from net-pens in Scotland, use of the same predator model at net-pens in Maine had no effect in repelling harbor or gray seals. Observations on pinniped behavior in the presence of predators and during field testing has shown that these methods are very short term or ineffective.

Capture and Relocation—Capture and relocation efforts with California sea lions at the Ballard Locks indicate that transporting captured sea lions relatively short distances (from Ballard to the outer Washington coast) are not effective, as the sea lions quickly return. Longer distance relocation from Ballard to the southern California breeding area was a possible, albeit costly, means of delaying sea lion return to Puget Sound for at least 30 days, thereby providing a window of safe passage for migrating salmonids that season. Unfortunately, not all predatory animals can be easily captured, especially those of greatest concern that had been captured/removed previously and have returned to forage at the Ballard Locks.

Capture and Placement in Captivity—California sea lions have been captured at the Ballard Locks, placed in temporary captivity, and released after the steelhead run. Temporary holding was found to be ineffective in the long-term because the sea lion returned the following season and could not be recaptured before it had preyed on salmonids. Sea lions from the Ballard Locks also have been captured and placed in captivity permanently. Although permanent captivity does eliminate the "problem" sea lions without having to kill them, the method is limited by costs and the availability of facilities that can hold sea lions permanently.

Effectiveness of Non-Lethal Measures

Efforts by NOAA Fisheries and the States as described above have been unsuccessful in finding an effective, long-term approach to eliminating or reducing pinniped predation in most situations. Some non-lethal deterrence measures appear to be initially effective or effective on "new" animals, but become ineffective over time or when used on "new" animals in the presence of "repeat" animals that do not react to deterrence.

High powered acoustic devices, such as the pulsed power device, may be effective non-lethal deterrents, but they also may affect other species. The agency was aware of these concerns in the development of the pulsed power device. The California Coastal Commission (CCC) rejected the agency's coastal zone consistency determination for ocean testing of the pulsed power device because they viewed it as inconsistent with protective criteria that are used for other sources of sound such as ma-

rine geophysical exploration, as well as due to concerns about its impacts on other marine species. NOAA Fisheries postponed the field testing of the pulsed power device to address CCC concerns, and required captive studies to determine what power levels would deter sea lions without causing injury or deafness to the animals.

Our interest was and is for development of deterrence technologies that can be applied on a broad basis (e.g., multiple fishing boats) with little or no adverse impacts on the environment, and without serious injury to the sea lions or other marine mammals—these criteria will apply to any future permits for testing deterrence devices. We need to seek new technologies and methods, beyond acoustic deterrence, to address human interactions with increasing pinniped populations. Perhaps the most promising line of research is a set of studies being conducted by Moss Landing Marine Laboratory to investigate basic behavioral characteristics of sea lions to determine what "cues" they use to find hooked fish. These studies would describe the "cues" involved in interactions with fishing operations and ways to possibly "mask" or eliminate those cues to avoid interactions.

Conclusion

In conclusion, NOAA Fisheries would like to thank the Subcommittee for holding this hearing today. While the increase of some marine mammal populations in the United States demonstrates that NOAA Fisheries has achieved the recovery and conservation goals of the MMPA, we also recognize that these "successes" pose complex challenges similar to those that resource management agencies have faced in the terrestrial realm. We must proceed carefully as we move from recovering stocks to managing stocks that are at OSP, given the mandates of the MMPA and the limits of our scientific knowledge and capabilities. As such, we would like to work closely with the Subcommittee to develop careful, creative solutions in the limited circumstances where problem interactions exist.

That concludes my testimony. I would be happy to address any questions the Subcommittee may have.

Mr. POMBO. Thank you. Mr. Brown.

AUDIENCE: What about the sea lions—

Mr. POMBO. I would just remind the folks in the audience that this is an official hearing, and we have to ask you not to respond to anything that is said. It is extremely important that we maintain decorum of the hearing.

Mr. Brown.

STATEMENT OF ROBIN F. BROWN, MARINE MAMMAL RESEARCH PROGRAM LEADER, OREGON DEPARTMENT OF FISH AND WILDLIFE

Mr. BROWN. Good morning, Chairman Pombo. My name is Robin Brown, and I am the leader of the Marine Mammal Research Program for the State of Oregon Department of Fish and Wildlife, and we appreciate the opportunity to meet with you today and talk about all of these different issues.

I would like to quickly recognize the support and assistance that the State of Oregon has received from NOAA Fisheries from the Pacific States Marine Fishery Commission, and we certainly thank Congress for the research funds that have been directed to the States by way of the commission that have allowed us to do some of the work in this area that we have carried out over the past many years.

As you have heard the data are unambiguous, and the pinniped populations have increased significantly. California sea lions are more common in Oregon than ever, and Harbor seals, specific Harbor seals have reached optimum sustainable population levels.

We have observed the same type of interactions that you have already heard a lot about, of human activities in the coastal zone,

and interactions with the public and private property, and with other marine resources.

In our area as well, pinnipeds damage boats, docks, utility supplies at marinas, and people have been threatened, chased and bitten. Sea lions that come out of the water to take landed fish off docks, and sea lions and seals take fish off hook and line from sport and commercial fisheries.

Ports have posted warning signs and closed docks because of the dangers posed by aggressive and persistent animals. With respect to fishery resources, we recognize and want to make it clear that pinnipeds and marine fishes have coexisted successfully in the marine environment for thousands of years, and we do not contend that pinnipeds are a primary cause for the declines recently observed in many fishery resources.

However, we do have concerns about the negative effects of pinnipeds predation and how that predation may affect the recovery of depleted stocks of endangered and threatened salmonids in our State waters.

While a great deal of work is under way to recovery those fish stocks, we feel that it would be a mistake not to consider the possibly negative impacts of pinniped predation on the recovery of those fish stocks.

Our work has shown us that pinnipeds travel tens and hundreds of miles inland from the ocean to forage on migrating salmon and steelhead. Individual seals and sea lions have been observed at this locations on multiple occasions within a single year, and over multiple years demonstrating a learned behavior and repeated behavior on the part of these animals.

However, we would like to point out also that we have found very few of these animals that exhibit this behavior, and they represent a very small portion of the total number of pinnipeds that occur in each particular area.

In the late 1990s at the direction of Congress, we worked with California and Washington with the Pacific States Marine Fishery Commission, and with NOAA Fisheries to develop a set of recommendations that would provide new options under the MMPA for dealing with the interactions of pinnipeds and salmonids.

Among other points that this report to Congress recommended was the establishment of a new management framework that would allow State and Federal resource agencies to more effectively resolve some of the most significant resource interactions and conflicts.

That report to Congress was endorsed by our department, by our Governor's office, and by our Oregon State legislative assembly, and we continue to urge Congress to consider and implement the recommendations made in that report.

Currently under the Marine Mammal Protection Act, commercial fisheries have legal authority to take thousands of pinnipeds each year, and reasonable limits on this mortality have been set to prevent negative effects on populations.

Our department believes that under a similar system of permitted mortality that State and Federal resource management agencies should have the ability to more effectively manage resource conflicts, including the option to remove small numbers of

individual pinnipeds, and putting other important and highly protected resources at risk, such as threatened and endangered salmonids.

It has been our experience that the currently available deterrent tools, and we have tried them all, are not highly or consistently effective. We strongly support the development of new and effective deterrents. However, we also recognize that they may be very challenging to develop tests and use.

Pinnipeds, as you have heard, are quick to learn. They are bold, and they are highly or can be highly elusive, and extremely determined. Based on our 25 or more years of experience, we suspect that a deterrent that does not have the potential to cause serious discomfort, pain, or injury to the animal is not likely to be very successful.

Testing and applying these powerful and effective deterrent devices will probably be met with opposition from parties concerned about inflicting pain on the pinnipeds, and about unintended negative effects on other living marine organisms and rightfully so in the latter case in our opinion.

Even with the use of a new successful deterrent the option for permanent removal of the most persistent animals will probably be needed in order to ensure the continued success of any deterrent program, and this has been shown to be the case in the situation of California sea lions and steelhead at the Ballard Locks in the Seattle area.

Finally, we would comment that the development of new deterrents may be expensive, and our department recognizes that this work is important, but we would recommend that the cost not be borne at the expense of the basic research on pinniped biology that provides us with the essential information about population status and resource conflict situations that we have been able to gather over the past few years. Thanks very much.

[The prepared statement of Mr. Brown follows:]

Statement of Robin F. Brown, Program Leader, Marine Mammal Research, Oregon Department of Fish & Wildlife

Introduction

The Oregon Department of Fish and Wildlife (ODFW) appreciates the opportunity to present the following written testimony to the U.S. House of Representatives Subcommittee on Fisheries Conservation, Wildlife and Oceans during this oversight hearing on The Marine Mammal Protection Act (MMPA). Much of the work and information described below was undertaken by ODFW in cooperation with the Northwest Regional Office of NOAA Fisheries and the National Marine Mammal Laboratory of the Alaska Fisheries Science Center. ODFW appreciates the support and direction provided by these offices and their staff. Direction for some of the most recent work on pinniped predation on salmonids in the Pacific Northwest came directly from Congress by way of the 1994 Amendments to the MMPA (Pub. L. 103-238).

Status of Pacific Harbor Seals and California Sea Lions in Oregon

ODFW has been monitoring the status and trends of pinniped (seal and sea lion) populations in Oregon since the mid-1970s, shortly following implementation of the MMPA, by way of statewide aerial photographic surveys. Both California sea lions and Pacific harbor seals are common, widespread and very abundant animals along the Oregon coast. Harbor seal numbers increased at an average annual rate of 5% from the mid-1970s through the early 1990s and have been stable in abundance at about 7,500 animals for the past 10 years. Statistical analysis of these population trend data indicates that harbor seals in Oregon have reached an equilibrium level within their environment and are currently within their Optimum Sustainable Pop-

ulation (OSP) range. A similar finding has been made for harbor seals in the State of Washington by the Washington Department of Fish & Wildlife.

California sea lions do not breed in Oregon and seasonal abundance trend data here are more difficult to obtain. However, it is believed that numbers of sea lions occurring in Oregon coastal waters from fall through spring each year increased from several thousand in the 1970s to roughly 10,000 in the 1990s. Seasonal abundance in the areas north of the breeding range (Oregon-Washington) varies annually, probably in response to changes in the abundance and distribution of forage fishes. Discussions with NOAA Fisheries researchers suggest that the total California sea lion population is well over 200,000 and may be at or near OSP levels. Clearly the populations both California sea lions and Pacific harbor seals on the U.S. West Coast are healthy and are currently at their highest recorded abundance levels.

Pinniped Interactions with Human Activities

As in other areas, one result of growing pinniped populations has been increased interactions with a variety of human activities, and with private and public property. ODFW has witnessed and/or received reports of significant and repeated damage caused to boats, docks, and utility supplies to marina facilities by seals or sea lions hauling out of the water at these sites. People working in these areas have been threatened, charged and in some cases bitten by aggressive sea lions reluctant to leave their resting areas. Ports in Oregon have had to post warning signs and close docks to human access due to the recurring presence of sea lions that cannot be deterred and thus pose a danger to public safety. In several cases, more aggressive individual sea lions have learned to come out of the water and take fish from landing areas or from around fish cleaning stations, thereby putting human safety at risk. The application of the available deterrent methods (noise, water hose, projectiles, etc.) has proven ineffective at discouraging the pinnipeds from using these areas. In one case, ODFW worked with the Port of Astoria to install low (20") railings of heavy galvanized pipe around the edges of docks to deter sea lions from hauling out there. This effort worked briefly until sea lions found a way around the railings (e.g. between a moored boat and the dock). Once on the dock, sea lions that were disturbed by people simply broke through the railings to re-enter the water, snapping the 2" steel pipe stanchions at the level of the dock with ease.

Interactions with Fisheries and Fish Resources

Since the mid-1980s ODFW has been examining pinniped food habits and foraging behaviors in order to identify and describe prey consumption, and to evaluate the relationships between pinniped diets and the status of important coastal fish resources. Concern over the possibly negative affects of pinnipeds on fish resources has increased significantly as the numbers of pinnipeds in Oregon have grown, and as the status and condition of certain anadromous, estuarine, and coastal marine fish stocks have declined. Although data on estuarine fish and pinniped numbers is generally not available for the period prior to implementation of the MMPA, it is not unreasonable to expect that many hundreds of resident seals now occurring year around in most coastal bays in Oregon may have a regulating effect on most estuarine fish populations (e.g. flatfish populations).

Among many people in Oregon, as in other parts of the world, there is a long history of opinion that pinniped populations should be controlled in order to protect and preserve fishery resources for human use. Little of this general conclusion has been based on sound evidence that pinniped populations, in balance with healthy prey populations, could have significant negative effects on abundant fish populations in healthy and productive habitats. ODFW is well aware that pinnipeds and marine fishes have co-existed successfully for many thousands of years. It is unlikely and, at least in Oregon, cannot be scientifically documented that foraging by pinnipeds is the primary cause for the declines in some of the fishery resource populations that have been observed in recent years (e.g. salmonids).

However, ODFW considers it quite possible that foraging by locally abundant pinnipeds, as part of very healthy populations, may have negative effects on the recovery of certain depleted fish resources. This may be particularly true where fish populations have been depressed for extended periods due to a variety of problems such as over-fishing, water diversions, deterioration or simplification of riparian, estuarine and other important fish habitats, influences of other human activities, and during periods of poor ocean and environmental conditions. During these times when great efforts by many agencies, organizations, and private individuals are underway at great expense to recover and restore important fish resources (e.g. threatened and endangered salmonids), it is unreasonable and irresponsible not to consider and address the limiting effects that predation may have on prey populations.

In many cases, predation by pinnipeds on fish is readily observed and documented. Examples of such situations include sea lions foraging near sport or commercial fishing vessels (including removing fish from hook and line), seals feeding on fish taken in commercial net gear, and pinnipeds feeding on fish attempting to pass natural or man-made restrictions in fish passage in inland waters (e.g. natural falls, dams, fishways, hatchery facilities). Research by ODFW and others has demonstrated that in most cases individual animals or relatively small numbers of pinnipeds are often responsible for this type of foraging behavior on a repeated basis. In many cases these animals can be easily identified by natural markings, while in others they have been marked as part of research studies designed to document this individual behavior and to evaluate the possible impact of feeding behaviors on fishing or on fish resources.

Individual Pinniped Foraging Behaviors

ODFW has been capturing and marking California sea lions in the lower Columbia River in an effort to describe the abundance, movements and foraging behaviors of the animals that occur in the river. In part, this work was undertaken to examine and evaluate the possible effects of pinniped predation on the salmonid species that spawn in the Columbia River and its tributaries. Many of these salmonid stocks have been listed as threatened or endangered under federal and state Endangered Species Acts. Coincidental to this work, ODFW and the U.S. Army Corps of Engineers (Fisheries Field Unit Staff) have been recording the presence and feeding activities of these marked sea lions at Willamette Falls and at Bonneville Dam, 128 and 145 miles upriver from the ocean, respectively. It has been documented that certain individual sea lions, on a repeated basis, make the trek to these fish passage facilities to forage on salmonids attempting to pass the fishways and move upstream. These individual animals may visit these sites repeatedly within a single season and repeatedly from year to year. Application of all available deterrent devices and methods, including the use of heavy rubber riot projectiles fired from a 12 gauge shotgun at point blank range, have not been the least effective at deterring the animals from these locations. Of the many thousands of California sea lions that occur along the Oregon coast, and of the hundreds of thousands that occur in the population overall, it appears that only a small number of individual animals learn and repeatedly exhibit these undesirable foraging behaviors.

In another research effort ODFW examined the foraging behaviors of Pacific harbor seals on salmonids in a smaller coastal river system. The Alsea River Basin is more typical of the small to mid-size estuaries and rivers found along the Oregon coast. In the 30 years following implementation of the MMPA, most of these systems have become populated with harbor seals numbering anywhere from 100 to 1,000 individual animals. Alsea Bay covers just over 2,000 acres and is occupied year around by an average of 500 harbor seals. ODFW undertook this research effort to evaluate the potential effect of harbor seal foraging on threatened coho salmon in the lower 12 miles of the Alsea River. By way of marking seals and observing seal foraging behavior ODFW documented that perhaps fewer than 10% of the total number of seals in Alsea Bay exhibit the behavior of traveling upstream to forage on returning adult salmonids. In one study year it was determined that a single seal was responsible for as much as 15% of all salmon predation recorded that season. In another study year it was estimated that the individual harbor seals that participate in salmonid foraging took between 10-50% of the estimated adult coho return for that year. A final evaluation of the impact of harbor seal predation on the recovery of ESA listed coho in the Alsea Basin has not been made.

This ODFW research on California sea lions in the Columbia River and on harbor seals in the coastal Alsea River system strongly supports the conclusion that individual pinnipeds often exhibit and repeat learned feeding habits, and that a relatively small proportion of the pinnipeds in any area are likely to participate in these undesirable foraging behaviors.

Research and Monitoring

ODFW considers it essential to maintain federal and state support for the pinniped population monitoring and examination of resource interactions as described above. Without the work conducted to date, we would not been in a position to provide the kind of information included in this testimony. Without continued support for this work, we will not be able to document changes in pinniped abundance, distribution, and feeding habits, or changes in levels of interactions with human activities that might result from the use of newly applied deterrents or other management actions.

1999 NMFS Report to Congress

For several years beginning in 1995, at the direction of Congress (MMPA, as amended 1994, Pub. L. 103-238), ODFW worked with the Pacific States Marine Fisheries Commission and with the States of California and Washington to assist NOAA Fisheries with preparation of a set of recommendations for Congress to consider during a process of amendment and reauthorization of the MMPA. In 1999 NOAA Fisheries presented the results of that effort in the document "Report to Congress: Impacts of California sea lions and Pacific Harbor Seals on Salmonids and West Coast Ecosystems" (Prepared by U.S. Department of Commerce, NOAA, National Marine Fisheries Service, February 10, 1999. 18p.). Among other points, the Report to Congress recommended the development of a framework for federal and state management agencies to address specific pinniped-resource interactions. This framework stepped down through the application of any non-lethal deterrents that might prove useful in a given situation. However, following a reasonable period, if not successful, then lethal removal of individual problem or rogue animals would be authorized, reported and monitored. It was and still is fully expected that this type of action would be limited, but could resolve some of the more serious and acute pinniped interactions where learned and repeated behaviors by individual animals could not be successfully deterred in any known non-lethal fashion. Meanwhile, as noted in the research recommendations, efforts to examine and evaluate pinniped populations and their interactions with other important resources would continue, along with new efforts to develop more effective non-lethal deterrent tools. The NMFS Report to Congress and the draft framework for these management options and research directions was endorsed by the Oregon Department of Fish and Wildlife, The Oregon State Legislature, and by the Oregon Governor's office. Our support of those recommendations and our urging of Congress to act on them continue to this date.

Authority for State Resource Management Agency Actions

ODFW is aware that under the MMPA and federal regulations commercial fisheries have legal authority to take thousands of pinnipeds each year during the act of fishery harvest. Limits on safe levels of mortality have been set by sound scientific analyses of removal levels that will not result in the decline of pinniped population below their OSP levels, or prevent them from achieving OSP. As a state fish and wildlife management agency, ODFW considers it incongruous and inappropriate, that a lawfully established and highly regulated resource management agency has no readily available, functional option to remove even very small numbers of individual pinnipeds that are destroying other important, highly protected and valued resources (e.g. threatened and endangered salmonids). Surely a system similar to that which provides for mortality in fisheries, but insures against negative population effects, could be established for state and federal resource management agencies to deal with relatively small numbers of individual pinnipeds that have learned and continue to repeat undesirable foraging behaviors. State resource agencies throughout the country work very effectively in cooperation with various federal agencies to deal with issues of seriously threatened or endangered species, with many other species that are currently under federal jurisdiction, and with a variety of resource conflict and conservation issues involving fish, wildlife and human activities. All of this work is carefully controlled, fully monitored and generally very successful. ODFW believes that dealing with similar issues involving healthy and abundant pinniped populations and coastal marine fish resources could be handled in a similar fashion with positive results.

Deterrents

It has been the experience of ODFW that the array of non-lethal deterrents currently available to resolve negative pinniped-resource-human interactions (under water acoustics, playback of predator recordings, above water noise makers, physical barriers, projectiles, capture and translocation, etc.) are not highly or consistently effective. ODFW supports the continued development and testing of non-lethal deterrents with the hope of finding one or more techniques that can be used to influence pinniped behavior and reduce the types of negative interactions that have been described here. However, we provide the following four comments for your consideration. First, the experience of our research staff, having worked with pinnipeds directly in all of the situations described above and more for over 25 years, strongly suggests that a long-term, highly effective deterrent may be extremely difficult to develop and problematic to use. The individual pinnipeds that have learned these undesirable foraging behaviors are driven by one of the two strongest urges in the animal world; in this case to feed. California sea lions and Pacific harbor seals are quick to learn, "intelligent", can be highly elusive, bold, and determined to the point

of bull-headedness. Very little that does not cause some type of pain or potential injury to the animal is likely to be a very successful deterrent for more than a brief period. Second, in many cases, even with the use of new successful deterrent tools, permanent removal of the most persistent animals (lethal or otherwise) is likely to be needed in order to insure the continued success of a deterrent program (as demonstrated by the problem of California sea lions at the Ballard Locks in Washington). Third, if the above statements are true, as experience suggests, then testing and application of powerful and effective deterrent devices will likely be met with strong opposition from parties concerned with inflicting pain or injury to the pinniped, or about the possible unintended negative effects of the deterrent device on other living organisms and important resources. Fourth, the development and testing of new deterrents is likely to be expensive. ODFW recognizes this work is important, but feels that the costs should not be born at the expense of the basic pinniped biological research that is needed to provide us with the essential and prerequisite information on pinniped populations and their interaction conflicts.

Conclusions and Recommendations

ODFW considers it essential to maintain federal funding support for state participation in programs to monitor pinniped populations, food habits and foraging behaviors, and the assessment and evaluation of pinniped interactions with fish resources and human activities. ODFW will make every effort to continue to support this work as well.

ODFW supports the recommendations of the 1999 NMFS Report to Congress to amend the MMPA to establish a new flexible, effective approach to managing acute problems between small numbers of pinnipeds from healthy and abundant populations that are interacting negatively with other significant coastal fish resources, or may be putting human activities and safety at risk. ODFW supports the establishment of the authority for state and federal management agencies to lethally remove rogue pinnipeds in serious conflict situations, under a carefully monitored joint program on a case by case basis, as is done effectively with numerous other species and issues.

ODFW has found that all existing non-lethal deterrents to pinnipeds involved in undesirable behaviors are ineffective or only minimally effective for short periods. ODFW supports the continued development, testing and application of non-lethal deterrent devices that show promise of successfully deterring pinnipeds in an effective and consistent manner. ODFW recognizes that we must be prepared to test and use serious tools in these cases if we expect to see the desired results. ODFW believes that in combination with effective non-lethal deterrents, state and federal agencies need to have the authority for permanent removal of rogue animals, in order to insure the continued success of deterrent programs dealing with conflict situations.

ODFW and the State of Oregon thank the U.S. House of Representatives, Subcommittee on Fisheries Conservation, Wildlife & Oceans, for the opportunity to provide these comments.

Mr. POMBO. Thank you.

Dr. Stewart.

STATEMENT OF DR. BRENT S. STEWART, SENIOR RESEARCH BIOLOGIST, HUBBS-SEA WORLD RESEARCH INSTITUTE

Mr. STEWART. Thank you, Mr. Chairman. I have a few slides and it might be best if we dim the lights if that is possible for a few minutes. I thank you for the opportunity and the invitation to provide some ecological demographic and biogeographic context for the issues that have been discussed today.

And I will try and highlight a few issues that may explain or at least provide some understanding on why, when, and where interactions between pinnipeds and humans have occurred and will occur. And in fact in some cases where there aren't any interactions.

I will highlight three species. California has a very diverse assemblage of marine mammals, and I will highlight them, including pinnipeds, three species of pinnipeds that have been discussed

today so far; the California sea lion, Harbor seals, and Northern elephant seals.

All are rebounding from very low levels for several decades or more ago from either presumed extinction, or near extinction, or very low abundance. California sea lions numbered in the few thousands in California waters. The primary breeding colonies are in Southern California at two sites, San Miguel Island, which is in a national park, and San Nichols Island, which is a Navy installation, missile tracking and testifying facility, and outlying landing field.

But the numbers as you can see from the graph here, these are births. The number of pups born each year in California have increased steadily since the 1940s and 1950s, but notice that there are a couple of things that are highlighted. The El Nino years, which the boxes occur round, where decreases in pups and in fact substantial decreases, generally occur in warm water El Nino summers, and then recover during the cool water periods to various extents following different El Ninos.

And the population is generally reflective of this. This is an indication of absolute population size, and the population likely does not respond to El Ninos the same that the births do, but the overall science of the population has followed a general increase in trends during this several decade period.

Harbor seals in the upper left, and just the distribution of Harbor seal colonies along the California coast, and you can see that they are pretty widespread in Central and Northern California, and down to Southern California, there are a few.

They occur on the Channel Islands, and four mainland sites in Southern California, including the site at Children's Pool, where numbers were very low in the 1980s in the area, a few dozen, and it has increased then to about 150 to 180 that occur in the area today, many of which are at Children's Pool.

Overall the numbers in California have increased steadily. The numbers may have stabilized in the last few years. I think we are waiting on a new survey that has been done this summer to validate that.

And the elephant seals have also increased from presumed extinction at the turn of the century. In the late 1900s, they were presumed extinct and recolonized the Channel Islands in the 1950s, and they have increased steadily throughout that period, and two primary rookeries again at San Nicholas and San Miguel Islands.

But they later colonized in the 1960s and 1970s at some mainland sites, including the beaches near San Simeon, where the colonies increased from a few births in the early 1980s to about 2,500 this past winter.

Some interactions here that have been locally resolved at least to resolve human safety problems by local groups working with NOAA Fisheries and private landholders to at least keep people safe. Some of the resources, or at least that these animals use, the marine habitats. This is a plot of California sea lion movements to show where they forage, at least during the summer.

And these are pretty much at island banks and upwelling systems, offshore, near the colonies. These are animals that breed at

San Nicholas Island and moved away from there on foraging trips during the summer breeding season.

And San Miguel Island, which is the other primary rookery, animals forage further to the north, a little bit closer to the coast, but often during the summer further from the mainland and often don't interact with coastal human activities.

Harbor seals are mostly coastal, and you will find them within a few miles of the haulouts and rookeries. Northern elephant seals rarely are seen. They occur far out at sea for about 8 to 10 months of the year, and often do not interact or are not seen by humans, regardless of what they are doing at sea.

And some of the resources that have facilitated these population increases, some of the research that has been done by us and other groups to identify these resources, and a summary of the primary prey for the three species, you will notice some overlap between California sea lions and Harbor seals, and also some overlap with their prey and those that are commonly exploited by humans.

Northern elephant seals again far exceed deep in the water column. And the principal foraging habitats, California sea lions are neuritic and somewhat demersal, but generally coastal upland dwelling areas when they are feeding near shore banks and islands. Harbor seals are demersal and also are near shore; and Northern elephant seals are far away from most human activities and presence.

These interactions that have been discussed today are certainly intensifying as the populations have recovered and increased, but it is a small proportion of the population generally that we see that is interacting with human use of marine habitats.

And it is seasonally affected. There are different patterns of habitat used by all these species, and they vary by season, and time of year, local time of year, and also autobiology, and whether they are migrating or they are breeding. So, thank you for the time.

[The prepared statement of Dr. Stewart follows:]

Statement of Brent S. Stewart, Ph.D., J.D., Senior Research Biologist, Hubbs-SeaWorld Research Institute

Mr. Chairman and Members of the Subcommittee, I am Dr. Brent Stewart, a Senior Research Biologist at Hubbs-SeaWorld Research Institute (HSWRI). Thank you for the invitation to testify before the Subcommittee today to provide some demographic and ecological context for the discussion on interactions between seals and sea lions (pinnipeds) and humans or human activities along the Pacific coast of North America. My comments below are based on 27 years of directed studies on the population biology, foraging ecology, and key marine and terrestrial habitats of California sea lions, harbor seals, and northern elephant seals in the eastern north Pacific Ocean. I will briefly describe the histories and current abundances of these populations, the marine resources that have evidently supported population growth, and their temporal and spatial patterns of geographic and vertical dispersion.

Population history:

The historic abundances of California sea lions, harbor seals, and northern elephant seals are unknown and, indeed, unknowable. Aborigines hunted them for several thousand years and likely reduced their populations substantially in many areas, especially at the Southern California Islands, and exterminated them at some locations. Whatever populations existed when European explorers, whalers, sealers and sea otter hunters arrived in California waters in the 18th and 19th Centuries were subsequently reduced even further until commercial harvests ended when populations had either been exterminated or reduced to levels too low to economically support further harvests.

California sea lions numbered only a few thousand by the mid-20th Century, breeding at two primary colonies at San Nicolas Island (a U.S. Navy outlying landing field and missile tracking and testing facility) and at San Miguel Island (part of the Channel Islands National Park since 1980) with limited public access. Reproduction has since increased rapidly and substantially at both colonies (with brief interruptions during El Nino years); over 40,000 pups were born in 2000 with slightly fewer in 2003 owing to biological effects associated with the mild 2002/03 El Nino.

Harbor seals were not common in California waters in the mid-20th Century, owing to a variety of causes including authorized bounties and indiscriminate shooting and poaching. Numbers increased steadily from the early 1970s onward through at least the late 1990s, though abundance may have stabilized since at around 45,000 to 50,000 with around 9,000 in southern California, primarily at the southern California Channel Islands. There are three mainland colonies of harbor seals south of Point Conception; at Carpinteria (south of Santa Barbara), at Mugu Lagoon (Point Mugu Naval Air Station), and at La Jolla. Numbers at the latter site (aka "Children's Pool") have increased steadily from fewer than a dozen in the late 1970s to around 150-200 in 2003 with reproduction in the area occurring since the late 1980s.

Northern elephant seals were presumed extinct by the end of the 19th Century owing to long-term subsistence harvest by aborigines, commercial harvests by whalers and sealers in the early 1800s, and then scientific collections in the late 1800s.. A very small number did however survive in Baja California, from which the species began recovering and expanding its range in the early 1900s. The southern California Channel Islands were colonized in the mid-20th Century and island and mainland sites in central California soon after. In 2003 over two thousand pups were born on mainland beaches near San Simeon, which has developed into a substantial tourist attraction. Population growth and range expansion in the U.S. is continuing. The two primary colonies for the species at San Nicolas and San Miguel Islands accounted for over 20,000 births in 2003.

Seasonal geographic dispersion:

Breeding California sea lions occur in large numbers at and near colonies at the southern California Channel Islands (principally San Nicolas and San Miguel Islands) from late May through August. Those seen near the mainland coast in southern California then may be from the colony at the Coronado Islands in northern Baja California or perhaps colonies farther south. Non-breeding sea lions from U.S. colonies occur farther north along the California coast throughout summer and may remain there or move even farther north in autumn and winter. Lactating females forage mostly away from the mainland coast throughout the year, near areas of strong upwelling of nutrients where resident and migratory fish and squid prey concentrate and aggregate. During El Nino years, when upwelling systems decline in strength or fail, sea lions may spend more time in habitats nearer the mainland in search of more dispersed neritic or demersal prey. Adult and socially immature males leave the breeding colonies in late summer and migrate north to feed, and to haulout regularly, while molting, along the coasts of California, Oregon and Washington and as far north as British Columbia. Large aggregations occur at several well-known mainland sites where seasonal abundance has been increasing owing to sustained reproduction in southern California during the past several decades and evidently good survival of juveniles and adults in most years. Most California sea lions occur in nearshore habitats when north of Point Conception, but generally farther offshore in Southern California, though small numbers of sea lions clearly inhabit near-shore waters from San Diego to Santa Barbara in most seasons.

Harbor seals generally remain near island and mainland haulout sites yearround, though they may travel up to 20-50 miles away to forage for several days or weeks at some seasons. Numbers of seals ashore vary seasonally as seals spend more time hauled out during the winter/early spring breeding season and in late spring and summer when molting and less time hauled out when more actively foraging from late summer through winter. Foraging harbor seals are also attracted to various coastal areas where prey aggregate or become temporarily concentrated, like at the mouths of streams and rivers.

Northern elephant seals rarely occur near the mainland or island coasts except when quickly departing at the end of the breeding season, arriving to molt, departing after molting, or arriving to breed. Elephant seals otherwise spend most of the year (8 to 10 months) several hundred miles or more from the mainland coast while feeding.

Diet:

The diet of California sea lions varies seasonally and has been dynamic over the past several decades. Near San Nicolas Island, four or five species of fish and cephalopods generally dominate the diet during any year. In the 1980s the principal prey were northern anchovy, Pacific hake, jack mackerel, several species of rockfish, market squid, and Pacific mackerel. In the 1990s the principal prey were Pacific hake, two-spotted octopus, chilipepper rockfish, market squid and jack mackerel.

Near the southern California Channel Islands, harbor seals primarily eat rosy rockfish, chilipepper rockfish, spotted cusk-eel, plainfin midshipman, market squid and red octopus. Near La Jolla, their diet is dominated by jack mackerel, Pacific sanddab, Pacific hake, and rosy rockfish.

Northern elephant seals prey mostly on deepwater, bioluminescent squid and, to a lesser extent, fish

Vertical Foraging habitats:

When in the Southern California Bight, California sea lions forage mostly at depths of 150 to 300 feet, primarily in offshore areas where upwelling of nutrients supports productive local resident and migratory fish and squid communities, though they may also forage occasionally on demersal prey in nearshore kelpbeds. Migrating sea lions, especially subadult and adult males, may forage closer to the mainland coast, often taking advantage of opportunities associated with recreational and commercial fishing operations that may provide easy meals with less foraging effort.

In southern California waters, harbor seals generally forage in demersal, nearshore habitats at depths of less than 300 feet.

Northern elephant seals principally forage in the water column at depths of 750 to 2,500 feet.

Conclusion:

The southern California Channel Islands and Southern California Bight support the most concentrated taxonomic diversity of seals of sea lions (pinnipeds) in the world. The populations of California sea lions, harbor seals, and northern elephant seals numbered between a few hundred to a few thousand in the early to mid 20th Century owing to long term subsistence hunting by aborigines and commercial harvests and indiscriminate killing in the early 1900s. Since the blanket prohibition on killing them in 1972, with the promulgation of the U.S. Marine Mammal Protection Act, ranges and populations have increased steadily to current levels that are several of orders of magnitude greater. Scientific research during the period of population growth has identified the marine and terrestrial habitats and prey that have been key in facilitating the increases. Several of those habitats are also used to various extent by humans for recreational or commercial purposes and some of fishes and cephalopods are exploited in common by pinnipeds and humans. These overlaps generally occur with small proportions of the pinniped populations in particular areas and seasons. The interactions between pinnipeds and humans have nonetheless been intensifying owing to the large absolute increases in populations and the periodic changes in distributions and foraging behaviors of pinnipeds during El Nino years when substantial declines in local abundance and distribution of normal prey occur. The most frequent interactions and conflicts are with California sea lions and harbor seals whose use of coastal habitats overlap most often with human activities. In contrast, interactions with humans and northern elephant seals are rare, owing to elephant seals' pelagic and deepwater foraging habitats and their brief seasonal presence at offshore islands. Exceptions are at recently colonized mainland beaches in central California, where human safety is the key issue. Though there are some indications that numbers of harbor seals may have stabilized recently, there are no indications that growth rates of populations of California sea lions or elephant seals may soon decline naturally.

Mr. POMBO. Thank you.

Dr. Hanan.

STATEMENT OF DR. DOYLE A. HANAN, PRESIDENT, HANAN AND ASSOCIATES, INC.

Dr. HANAN. Good morning, Chairman Pombo, thank you very much for this opportunity to speak to this subcommittee, and I want to thank Congressman Cunningham for this opportunity. I appreciate it.

Recently I was asked to put together some information regarding the cost of the sea lion population, and what does it cost in an abundant sea lion population to the West Coast, and this preliminary report was funded by the Fisherman's Lines of Monterey and the Sports Fish Association of California, and I would like to thank them for their help.

My credentials are that I received my Ph.D. at UCLA in studying the population dynamics of Harbor seals. I served with the California Department of Fish and Game for 27 years during which time I supervised and was the lead biologist in their marine mammal program for about 15 years.

I currently serve on three advisory committees or bodies, one is the Pacific Scientific Review Group, to advise the National Marine Fisheries Service on marine mammals in the Pacific. I also serve on the Take Reduction Team for the Pacific Cetaceans, and I am also on the advisory panel for the highly migratory Species for the Fishery Management Council.

Part of the significant points in this preliminary report since the 1997 report to Congress, which was written regarding impacts of sea lions and Harbor seals, on salmonids on the West Coast Ecosystem, this is a preliminary report. Our final report will be finished up by the end of this year.

Since that report to Congress was written, research has focused on population estimates, and the biology of the pinnipeds, food consumption, and interactions. By interactions we mean either taking bate, taking fish, or reducing the ability to take fish by fishermen.

The California sea lion population is robust and expanding at 6 to 8 percent annually, and I think that this is an indication of the health of the environment, and the health of the forage fish that they feed upon.

Some estimates put the sea lion population at over 300,000 at this time. If we estimate that a sea lion might eat 8 to 10 percent of its body weight per day, that is about 20 pounds of fish per day, which would indicate that sea lions could eat 3,000 tons of fish a day, which will be as much as a million tons of fish per year, far in excess of any of our fisheries.

What are the effects on the recreational fishery. With over 700,000 angler days per year on as many as 400 commercial passenger fishing vessels, we estimate that in the last 4 years there have been anywhere from 12 to 40 percent interaction rates with each of those fishing days.

And what we mean by that is that either a depredation, actually taking a fish, or a sea lion approaching the boat, which causes or they said which cuts off the bait. In other words, the fish leave, and so there is nothing to fish.

When that happens, the boat usually picks up and moves to another area. What is the cost of moving to another area? We estimate 290 days are lost per year in the party boat or CPFB fishery.

Fish lost. There are about 3 million fish landed per year in the recreational fishery, in CPFB fishery, and about 65,000 fish are lost per year, and at 50 cents a fish, we could say there was about $45,000 of lost fish.

Bait losses. We estimated bait losses at $55,000 per year. Gear loss. When a fisherman loses his gear to when a fish is taken off

his line, and the gear can be anywhere from $2 to $9. We estimate that gear loss would be $380,000 per year.

An average total loss of about $2-1/2 million per year in the recreational fishery. In the salmon troll fishery, which is a fishery where lures are trolled through the water, we estimate $470,000 lost in fish per year, at $20 per fish. And this can actually end the season. It can make it so that the salmon troll fishermen can't even fish at the end of the year.

In the live bait fishery, which you heard about with the last panel, this is about a $30 million industry in California. I have guesstimated losses due to the loss of bait that is in the banks from sea lions breaking in and from sea lions destroying the bait around $2-1/2 million per year.

Also, I have—you heard from Mr. Everingham about the receivers, and I have some more testimony that I would like to give to you from a bait receiver operator in Redondo who reports similar problems.

So what are the issues? We have a growing, robust sea lion population. Culling is not the answer. People are not interested in culling and it is not a way to look at solving the problem, but at what cost?

We need to look for reasonable solutions, and I would recommend that you look to the 1997 report to Congress, and the recommendations that were included in that report. I would ask that you implement those recommendations, which include site specific management.

But don't make it a media event, nor a delaying process. I would ask that you ask for development of safe effective deterrents, and I would ask that you reinstate the ability of commercial fishermen to protect their gear and catch with certain rules and regulations.

Continue the research. I would ask that you establish a fund to develop a deterrent program within the National Marine Fishery Service. These types of programs are very effective. For instance, with the tuna and porpoise issues, and the development of the Medina Panel, and the backdown techniques. With the SRG process and the take reduction teams, and the reduction in marine mammal take in the drift gill net fishery was about 80 percent. And a final thing, I would say that if we cannot develop effective deterrence, we need to reimburse the fishermen, the fishing population, the businesses, for the loss due to sea lions. thank you very much.

[The prepared statement of Dr. Hanan follows:]

Statement of Doyle A. Hanan, Ph.D., President, Hanan & Associates, Inc.

California sea lions interact with almost all commercial and recreational fisheries along the west coast of America. As the sea lion population continues growing, so do fishery interactions and the costs associated with these interactions. In this report, we present three case studies (recreational fisheries, commercial salmon and live bait receivers) to exemplify the economic impact of sea lions in California. This report presents our preliminary results using readily available fisheries data and published and unpublished sources to provide value estimates associated with sea lion interactions and depredation.

California sea lion interactions with fisheries in California have been documented since implementation of the Marine Mammal Protection Act in 1972 (Miller et al., 1982, DeMaster et al., 1983, Hanan et al., 1989, Beeson and Hanan 1996, Fluharty and Hanan 1997, NMFS 1997). When these studies were initiated in the late 1970's approximately 80,000 sea lions inhabited the U.S. West Coast. More recently, in the

National Marine Fisheries Service mandated Stock Assessment Reports (SAR) Carretta et al. (2002) presented an estimate of over 200,000 sea lions, growing at a rate of over 6% annually (Figure 1). A revision of the SAR is expected by the end of 2003 incorporating new biological life history information that will change the population estimate to well over 300,000 sea lions. Aside from the actual population estimate, with the population growing so dramatically, it is likely that sea lion interactions will also increase proportionally. Therefore, in terms of resource management, it is important to obtain as much information on pinniped interactions as possible and to place a dollar value on these interactions to help understand and put the issues into perspective.

To estimate costs associated with sea lion interactions, data are available from a variety of sources. Depredation rates (the number of fish depredated relative to the total angler landings) have been estimated (Miller et al., 1983 a, b; Hanan et al., 1986; Beeson and Hanan 1996; Hanan and Fluharty 1997) and were documented by area in a report mandated by Congress (NMFS 1997) to document the effects of sea lions and harbor seals on west-coast salmon and the greater ecosystem. Additional data are available since that report to Congress (MRFSS 1999) as well as, research funded by Congress, NMFS, and administered by the Pacific States Marine Fisheries Commission under the Pacific Coastal Salmon Recovery Fund (Appendix A). The ultimate goal of our project is to use these data in combination with information obtained from the literature on pinniped population assessments, food habit studies, and fishery statistics to estimate fish consumption and other costs associated with pinniped interactions. Results from our project will provide valuable insight into the current effects sea lions are having on west coast fisheries, facilities, and quality of life.

Acknowledgments

This report was prepared using funds kindly made available by the Fishermen's Alliance of California and the Sportfish Association of California; we specifically thank Mr. Frank Emerson and Mr. Robert Fletcher for their help in securing these funds.

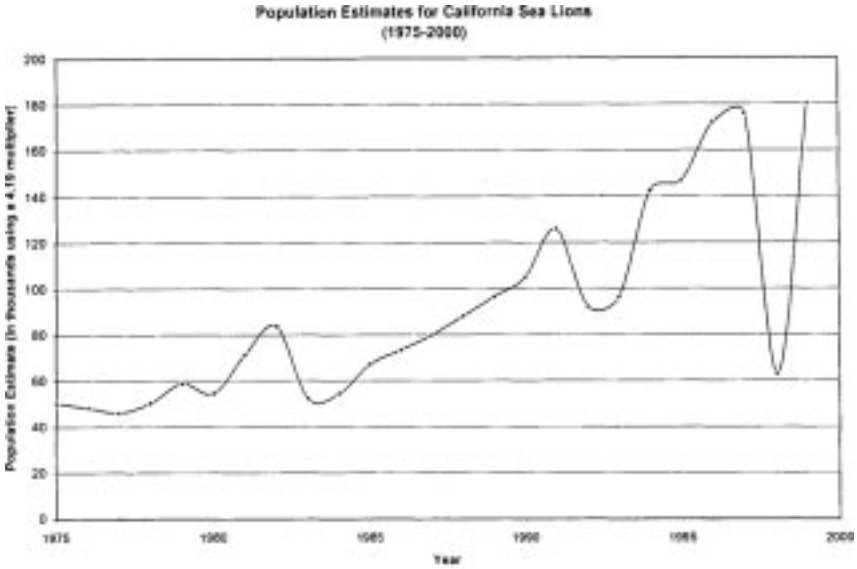

Figure 1. California sea lion population estimates from 1975-1980 based on applying a 4.19 multiplier to the pup count index as described in Carretta et al. (2002).

The PacFIN (http://wwwpsmfc.org/recfin) and RecFIN (http://www.psmfc.org/pacfin/data) data bases (maintained by the Pacific States Marine Fisheries Commission) integrate state and federally funded sampling programs for marine fisheries. The ultimate goal is providing databases where information can be accessed by fisheries managers and interested parties. PacFIN and various California Department of Fish and Game (CDFG) reports provide information on number of vessels in a

particular fishery, landings, species, and value. Data for marine recreational fisheries have been collected since 1979 by the Marine Recreational Fisheries Statistics Survey (MFRSS) funded jointly by the NMFS and the state fisheries agencies. Surveys include intercept (creel) and phone surveys, and onboard observer data collection. Since 1999, interview forms include supplemental information describing pinniped interactions with CPFV (Commercial Passenger Fishing Vessels which sport anglers pay to ride and fish). In California MRFSS samplers rode CPFV's to interview the anglers and obtain information on location of harvest, as well as, detailed pinniped interaction data. The interviewer observed angler interaction with pinnipeds and recorded lost bait, sportfish, gear, and time resulting from pinniped interactions. These data will provide insight into the actual behavior of depredation by sea lions as well as providing the basis for establishing values for the loss associated with each interaction.

RECREATIONAL FISHERIES

In California, approximately 700,000 anglers fish annually and spend hundreds of millions of dollars for this privilege (Golden 1992, Thompson and Crooke 1991). They fish year round from piers, jetties, beaches, shores, private boats and CPFV (also known as party boats). In this study, we focus on private boats, charter boats and CPFV. Anglers fish for a variety of species from party boats carrying as many as 50 anglers per vessel. California sea lion interactions have become an integral part of this fishing experience. These interactions range from the mere presence of a sea lion scaring the fish and keeping them from biting, to removing caught fish and bait from lines, to damaging gear, and causing the boat to take the time to move to another location. These interactions were documented recently by MRFSS pinniped add-on study for the years 1999 through 2002. These can be used to determine the extent of the interactions when compared with the results from Miller et al. (1982), Beeson and Hanan (1996) and Hanan and Fluharty (1997). An additional, more detailed data set collected by trained observers onboard CPFV can also be used for comparison to the RecFIN interview and CPFV logbook data (collected by the California Department of Fish and Game). The tables below represent our preliminary results. Table 1 summarizes estimates derived from number of interactions and the rate interactions to estimate annual rates from 1999 to 2002.

Table 1. Total number of California commercial landings, anglers and registered CPFV for 1999-2002 provided annually by the California Department of Fish and Game.

YEAR	FISH LANDED	ANGLERS	#CPFV
1999	3,395,470	675,353	303
2000	3,225,996	746,266	309
2001	3,136,207	709,586	313
2002	3,182,511	694,236	412

Interactions

Table 2 shows the overall rates of interactions by year from the RecFIN interview data. Interactions include approaching close to the vessel (scares fish away), depredation, damaging gear and moving the vessel away from the sea lion(s). The 1999 onboard angler survey had an interaction rate of 40% and included sea lion presence as a basis of interactions.

Table 2. California sea lion interactions from RecFIN MRFSS Pinniped add on data.

YEAR	INTERACTION	NO INTERACTION	RATE
1999	257	1055	20%
2000	274	1541	15%
2001	159	1195	12%
2002	432	2043	18%

Fish Lost

Table 3 shows the estimate of fish lost to sea lions by year with an estimate of fish value based on interviews after anglers returned to the dock. Miller et al. (1982) and Beeson and Hanan (1996) provided costs estimates based on the value of the species lost due to predation (ranging from $0.5 to $0.7 per fish.). As a preliminary estimate, we used the lower value of $0.5 per fish for comparison. The depredation rate was between 2% and 3% percent for 1999-2002. The 1999 onboard angler data set had a 3% loss of fish based on at-sea observations.

Table 3. Fish taken by California sea lions from recreational fishing boats interviewed by MRSSF. Multiplying the number of estimated fish lost per year by $0.5 gives the value. The differential value is determined from a multiplier obtained by comparing the onboard observer data with the dockside and phone interview estimates.

YEAR	ESTIMATED FISH LOSS	VALUE OF FISH LOST	NUMBER OF FISH USING DIFFERENTIAL	VALUE USING DIFFERENTAL
1999	75,100	$38,000	101,900	$50,950
2000	58,700	$29,000	79,600	$39,800
2001	51,000	$25,000	69,200	$34,600
2001	81,000	$40,000	109,900	$55,000

Bait Lost

Bait is taken by sea lions directly off the line or from the water when chum is thrown to attract game fish. The sample size for this data item was very small. The onboard angler survey did not record these data. The value of bait was determined by dividing an estimated 100 fish per 10 pound scoop by its average cost of $30 per scoop.

Table 4. Estimate of bail lost to depredating sea lions from MRFSS interview survey data.

YEAR	ESTIMATED NUMBER OF LOST BAIT	BAIT VALUE ESTIMATE
1999	301,500	$90,000
2000	130,300	$39,000
2001	103,300	$31,000
2002	199,900	$60,000

Gear Lost

Fishing gear losses for the approximately 700,000 angler days consist mainly of lures and other items attached to the fishing line. The minimum estimate provided to the interviewers for lost gear lost to sea lions was $1 and the maximum was $9 with a mean value of $2. The onboard angler survey was provided data for gear loss in the range of $1 to $170 dollars with a mean of $9.

Table 5. Estimates of the value of gear lost as a result of sea lion interactions from MRFSS interview survey data. Values were calculated based on reported amounts. A multiplier was developed by comparing the interview data with the onboard observer data for 1999.

YEAR	ESTIMATED VALUE	ESTIMATED VALUE WITH DIFFERENTIAL
1999	$21,800	$ 230,500
2000	$12,800	$ 135,400
2001	$35,800	$ 378,600
2002	$73,293	$ 775,000

Time Lost

The time lost as a result of a pinniped interaction is one of the most interesting behaviors documented in the data sets. There is a difference in the estimates of lost time between the interview data where anglers are asked after the fishing trip to provide an estimate of the time lost moving and avoiding sea lions and the onboard observation data where actual start and end of fishing time is recorded. The time lost recorded in 1999 was about three times higher than angler estimates after a fishing trip, which leads us to believe that the anglers certainly are not exaggerating losses or pinniped interactions. Estimating the value of lost time can be attributed to a number of tangible items such as fuel and personnel but the simplest way to estimate value is to use average cost of chartering a CPFV per day ($2000). The amount of time lost is recorded in minutes but when compared to the entire set of fishing trips, the numbers are quite large and can be described in total days. The minimum time lost per interaction was recorded to be one minute with a maximum of 45 minutes in the interview data with a mean of eight minutes. For the onboard angler survey, the minimum time loss was one minute and the maximum was 500 minutes. That is an entire work day avoiding sea lions and eight hours is a very long time when it's your recreational time. If each vessel shared the cost of losing time, they would all be losing around $6,000 a year in time spent moving or avoiding sea lions. Further analysis should reveal whether some of the high values

of lost time correspond to higher interaction rates for lost fish, lost gear, or lost bait. A multiplier was developed comparing the onboard data with the interview data from 1999.

Table 6. Estimates of total days lost from MRFSS interview survey data with very few data points reported.

YEAR	ESTIMATE OF LOST 8 HOUR DAYS	VALUE ESTIMATE	DIFFERENTIAL ESTIMATE OF LOST 8 HOUR DAYS	VALUE ESTIMATE USING DIFFERENTIAL
1999	691	$1,382,900	2190	$4,380,000
2000	224	$ 447,100	710	$1,419,900
2001	31 (only 2 observations)	$ 61,500	98	$ 196,500
2002	208	$ 413,000	659	$1,318,400

Total Value of Pinniped Recreational Fisheries Interactions

The total economic loss to the recreational fisheries from pinniped interactions is estimated in Table 7. The mean total value ranges from $600,000 to over $5,000,000 annually. If these losses are divided between individual vessels in the CPFV fleet, each vessel would incur losses in the range of $2,000 to $16,000 annually to sea lion interactions.

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Table 7. Sum total for all estimated values of loss resulting from sea lion interactions with recreational fisheries for the years 1999-2002.

YEAR	VALUE ESTIMATE	VALUE ESTIMATE USING DIFFERENTIAL
1999	$1,532,000	$4,751,400
2000	$ 528,000	$1,633,900
2001	$ 153,000	$ 640,500
2002	$ 589,000	$2,208,200

RecFIN data provide insight into behavior of sea lion interactions. It is often thought that interview data might be skewed towards exaggeration of the impacts, but the onboard observer data seems to dispute that concept because estimates of fish, time, and gear lost are all higher in the onboard observer data. One reason may be that many of the questions for the onshore interview surveys are left blank, while the onboard observers collect the data as it is occurring. The amount of data available using RecFIN is extremely small compared with the total effort of the recreational fishing fleet but it is a start. It would be valuable to incorporate the CPFV data into the analyses as was done in the previous studies (Miller et al., 1992, Beeson and Hanan 1996, Hanan and Fluharty 1997) especially because the CPFV logbooks include a field for recording "fish lost to seals/sea lions" starting in 1994.

COMMERCIAL SALMON

In salmon troll fisheries, the fishing vessel trolls lures attached to a weighted line through the water. Once a salmon is hooked it is brought aboard the boat. Sea lions react to hooked fish by either removing the fish from the hook or damaging the fish. This can have a significant impact on the fishermen considering the average price for each fish is about $20, in addition to the cost of lost or damaged gear. The numbers of depredated salmon have increased as the sea lion population increased (Hanan and Fluharty 1997). In 1980, an estimated 12,459 legal sized salmon worth $274,000 were lost, while in 1995, an estimated $86,700 salmon worth $1,734,000 were lost to sea lions. Table 8 lists associated value estimates for the depredated fish portion of the catch for the years 1980 through 2002. Miller et al. (1982) estimated the depredation rate to be in the range of 2% in 1980. Beeson and Hanan (1996) found the rate had increased to 12% likely as a result of the increase in the sea lion population itself. The data presented in Table 8 are taken from PacFIN landings and value reports and serve to illustrate the point that there is a cost associated with sea lion depredation on commercially caught salmon. Analyses of commercial salmon troll fishery data are in progress and should be available by the end of the 2003 (Palmer et al. in prep, CDFG).

Table 8. Estimate the economic loss caused by sea lion depredation of salmon. Depredation rates for commercial salmon troll fishery of 2% (1980-1994) and 12% (1995-2003) were obtained from Miller et al. (1982) and from Hanan and Fluharty (1997). *Note that 2003 data are incomplete, representing about 1/3 of the year.

YEAR	VALUE of LOST SALMON	YEAR	VALUE of LOST SALMON
2003*	$893,000	1994	$129,000
2002	$572,000	1993	$114,000
2001	$1,238,000	1992	$89,000
2000	$891,000	1991	$167,000
1999	$367,000	1990	$229,000
1998	$897,000	1989	$267,000
1997	$718,000	1988	$825,000
1996	$1,404,000	1987	$503,000
1995	**$129,000**	1986	$298,000
		1985	$231,000
		1984	$145,000
		1983	$86,000
		1982	$380,000
		1981	$285,000
		1980	**$274,000**
		TOTAL	$11,288,000

Weise and Harvey (2001) studied interaction rates between sea lions and salmon troll fisheries in Monterey Bay and also found depredations rates to be in the range of 12%. They found definite pulses of interactions corresponding to the migration of sea lions to and from the breeding islands. In 1995, the CDFG Ocean Salmon Project which estimates annual landings and fishing effort in California's commercial salmon troll fishery added sea lion interaction information to their database. Hanan and Fluharty (1997) utilized those data to estimate sea lion depredation rates and obtained similar results. Our data show an average loss over this 24 year period of approximately $450,000 annually. The costs associated with a 2% or 12% rate of salmon depredation clearly points to a conflict between sea lions and fisheries and are further complicated by the conflicts between two protected resources (marine mammal and salmon).

LIVE BAIT RECEIVERS

Reports of sea lions interacting with commercial live bait receivers have increased dramatically over the past few years. Previously, as in the case studies described above, sea lion interaction studies have been focused on sport and commercial fisheries. Bait receivers are floating pens or containers where small schooling salt-water fish and squid are kept alive for sale as sportfishing bait. The receivers are anchored or secured to shore in bays and harbors where the live bait are sold to anglers on private boats, CPFV, or charter "six pack" boats. Sea lions haul-out on the floating structures and interact by preying on the bait, breaking into the receivers, and damaging the structures.

Hanan (2002) provides baseline information on the types of containers used to hold the bait and discusses some of the strengths and weaknesses of each design. In that study, numerous sea lion behaviors were documented in relation to bait receivers and associated costs. Sea lions climb onto (haul out), swim near, break into the receivers, or (if the receiver lid is open) jump from the harbor water over the walkway into them. They chew through the netting on some receivers and ram the walls to create holes allowing the bait to escape through openings or the sea lions to get into the receivers. They also blow bubbles (air blasts) up through the receivers when swimming underneath. This disrupts bait schooling behavior and swim patterns causing the fish to collide and be injured, thus increasing bait mortality—ultimately to be eaten by sea lions and birds.

Hanan (2002) summed individual operator estimates of total annual losses and additional operational costs in California to estimate the total losses associated with sea lion interactions on live bait receivers. Loss estimates include damage and repairs to receivers, increased construction costs and maintenance, value or volume of bait killed or consumed, and cost of replacing bait destroyed by sea lions during the six month peak period of sea lion interactions. He noted that as much as 30-100% of the bait in a receiver can be lost each night. Live bait is currently valued from $20 to $40 per scoop (each scoop contains approximately 10 pounds or around

100 fish) and each receiver holds varying amounts of bait fish depending on size and location.

The retail value of bait in this industry is estimated to be about $30 million dollars (5000 tons x 200 scoops/ton x $30/scoop). Table 9 breaks down losses to sea lions by region for a total bait loss of about $2.3 million, which represents approximately 8% of the retail value. If as expected, these financial losses continue to increase as the sea lion population increases, developing methods for identifying repeat offenders and reducing interaction will be crucial for the survival of this business. The safety of receiver operators who come in contact with these sea lions must also be considered.

Table 9. Estimated financial loss associated with California sea lion interactions by region in 2001.

REGION	ESTIMATED VALUE OF LOSS
San Francisco	$130,000
Santa Cruz	$160,000
Morro Bay, Avila, and Santa Barbara	$ 70,000
Ventura, Port Hueneme, and Oxnard	$0
Redondo (2003 estimate)	$ 92,400
Marina del Rey	$ 32,000
L.A./Long Beach	$286,000
Newport Beach	$270,000
Dana Point and Oceanside	$405,000
Mission Bay and San Diego	$937,000
TOTAL	**$2,382,400.00**

As Hanan (2002) noted, the financial losses imposed on live bait receiver operators can be staggering but he also found that certain structures could stand up to the trials of sea lions better than others. Changes to structural designs are a start towards mitigation, but there is very little an operator can do when a large sea lion decides to jump in the bait well. Operators need sea lion deterrents and options for the protection of their product, facilities, and for personal safety.

CONCLUSIONS

What are the costs of maintaining a healthy, abundant and expanding California sea lion population? In this presentation, we identified and explored some economic impacts of pinniped as a measure of degree. For years, resource managers have focused primarily on the protection and success of marine mammal populations to increase in numbers with attention to reducing interactions and reducing marine mammal incidental mortalities. Now that the California sea lion population has grown is still growing beyond any level recorded or expected, this protected species might be categorized as overabundant therefore confounding its management (Yodzis, 2001) under the MMPA. The estimated value of catch and gear damaged by pinnipeds in California fisheries exceeded $450,000 in the early 1980's (DeMaster et al. 1982). But now our preliminary estimates using data from recreational fisheries and commercial salmon may be in excess of $5 million dollars annually. Factoring in the live bait receiver industry pushes the economic losses over $7 million dollars annually.

In addition to the financial burden of sea lion interactions on the fishing industry, there may be an impact on certain fish stocks. Hooked fish lost to sea lions are losses to the fish population and these losses need to be taken into consideration when determining allotments or quotas. As certain fish species decline, sea lion consumption would become a larger portion of the extant population and are likely a problem in fish stock recovery.

As has been stated in many reports regarding fishery-pinniped interaction issues that we are still data poor, but these data give us a qualitative look at pinniped interactions. Appendix A lists some of the federally funded research projects initiated since 1998. The results from these projects should provide a better picture of the level of interactions occurring along the West Coast, but attention to development of non-lethal deterrents for pinnipeds has been inadequate. We agree with the Marine Mammal Commission's recommendation that a workshop of fishery specialists, marine mammal behaviorists, trainers, and other appropriate experts be convened to recommend a program of specific studies aimed at identifying safe and effective deterrence measures.

We further recommend that Congress fund and NMFS establish a non-lethal deterrent development program.

In terms of recommendations, general culling is not a reasonable solution (DeMaster and Sisson 1992, Goldsworthy et al., 2002), but identifying individual animals that repeatedly cause damage or threaten the safety of any person and removing those animals is imperative.

The set of laws governing natural resource use is implemented by a vast number of agencies, at federal, state, and local levels (Eagle et al., 1997). These complexities were magnified when the State of Washington requested to lethally remove individual pinnipeds identified repeatedly returning to the Ballard Locks to depredate ESA protected steelhead salmon. No sea lions were lethally removed. They were transferred to captive care, but the process leading to the final determination of removing the animals, took years. This example shows how the system is currently too complicated and time-consuming, and requires considerable resources. That process does not work.

Clearly there are significant losses to sea lions in the fishing industries, these business operators should be compensated for their losses due to overabundant sea lions when no legal, effective deterrents are available.

We also support the recommendations for reducing pinniped interactions outlined in the 1997 Report to Congress:

(1) Implementing site-specific management for California sea lions and Pacific harbor seals.
(2) Develop safe, effective non-lethal deterrents.
(3) Selectively reinstate authority of the intentional lethal taking of California sea lions and Pacific harbor seals by commercial fishermen to protect gear and catch.
(4) Additional research and development of all these issues.

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APPENDIX A

WEST COAST FEDERALLY FUNDED PINNIPED INTERACTIONS RESEARCH

RESEARCH PROJECT	Affiliation	Principal Investigator
Evaluation of non-lethal measures used to deter pinnipeds and other terrestrial Mammals	NMFS	Scordino
Food Habits of California sea lions and harbor seals in Washington	NMML	Gearin
Life history parameters of California sea lions	NMML	DeLong/Laake
Pinniped predation on ESA listed salmonids	NMML	DeLong/Gearin
Assessment and life history parameters for harbor seals in OR/WA	NMML	Huber
Assessment and study of the impacts of California sea lions interacting with bait receivers in California harbors	HDR	Hanan
Harbor sea census	CDFG	Read
Observations and documentation of sea lion interactions with the commercial salmon troll and sport charter and skiff fisheries	CDFG	Hanan/Palmer/Grover
Observations of pinniped interactions with CPFV in California	CDFG	Hanan/Ebner
Pinniped interactions in the squid fishery	CDFG	Hanan/Sweetnam
Genetic identification of salmonids (spp/stock) in pinniped food habit samples	CDFG	Huber
Ocean Salmon Project - Dockside creel census at 20% of all ocean salmon sport fishing vessels (private and charter)	CDFG	Palmer/Grover
Monitoring pinniped predation on salmonids in selected Oregon estuaries	ODFW	Brown?
Monitoring pinniped predation on threatened and endangered salmon in Washington State	WDFW	London
Observations of pinniped predation on salmonids of concern in Hood Canal	WDRW	Jeffries
Hydrographic and ecological factors affecting pinniped predation on ESA-listed salmonid species in the Columbia River	NWML	Tynan
Impacts of California sea lions and Pacific harbor seals on Salmonids in Monterey Bay, CA	CSML	Harvey/Weise
Food habits of California sea lions and their impact on salmonid fisheries in Monterey Bay, California	CSML	Harvey/Weise
Determining the percentage of salmon taken by pinnipeds in commercial and recreational fisheries	CSML	Harvey/Weise
Pinniped feeding ecology, salmon depredation and deterrent testing at selected California Rivers	CDFG	Hanan/Warren/Kalvass/Moore

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Mr. POMBO. Thank you. It is interesting that you talk about culling not being a solution or part of that, and when you look at management of the entire population, I am interested to find out from all the members of the panel what do you do when you reach a point of over-population?

I mean, what should we do, and maybe I will start with you, Mr. Stewart. When you look at the California sea lion as an example, what do you do when you have a population, an over-population point in certain areas?

And how should we deal with that? What management tools should we use, and when you look at the Federal and State agencies, and what their responsibilities are, how should we deal with that?

Mr. STEWART. I think it is a good question that we have all thought about, but the issues are really with the implementation of the Act as it was created, and the original intent and the spirit of it, which did contemplate at least the potential for populations to reach that level without really having the tools.

So the key thing is to really have I think more creativity in defining some of these tools. But we really don't seem to have them for the local issues, which are where most of these conflicts come up.

The overall population control issues, we have some examples from terrestrial habitat, from terrestrial species of birth control that have worked variously successfully or not, and so that has not really been explored.

But the issues off California are not unique in the world. There are several populations around the world that have recovered similarly, even from very low levels, or similar low levels to now in the couple of millions in places, and where there is some culling, but I think Doyle is right. It is not a solution here.

It will be tremendously unpopular and it has been so far to even have dialog about it, but the problems are local, and with a small proportion of the population. So the creativity that is needed in addressing some of these local issues needs to be and continues to be supported and facilitated through the MMPA and its implementation.

Mr. POMBO. Now, it is obviously a difficult issue to deal with, and something that we are struggling with, because obviously there are populations which are endangered, and I think deserve a certain level of protection. But you have different populations which not only are not endangered. They are over-populated.

And how do you deal with those differences, and Mr. Lecky, maybe you can help me with that, in terms of should there be a different level of protection when you are talking about an endangered species and endangered population, versus one that not only has recovered, but is in the state of over-population. Should there be—when we look at the Marine Mammal Protection Act, should there be differences in the level of protections?

Mr. LECKY. I think, Congressman Pombo, if you actually look at the statute, it does contemplate that and allows for it in Section 118, which regulates the incidental take of marine mammals in commercial fisheries.

There are different levels of take allowed, depending on the status of the population, and the potential biological removal levels that are calculated and factored in, and whether the population is at OSP, in which case you can virtually assign removal of all of the production in terms of mortality, versuspopulations that are endangered, where 90 percent of their production is reserved for population growth.

But also our mechanism in the statute that allows for the States to apply for resumption of management once populations are at OSP levels, where States could implement consistent with the overall principles of the statute, local controls, and deal with some of these local problems on their own.

And I think that the 1994 amendments to the statute liberalized the harassment provisions of the statute, and actually broadened some of the lethal removal exceptions to allow dealing with at least these really aggressive animals that we are seeing today.

So I think that there are mechanisms in the Act that we could pursue. We could probably use some additional policy guidance in terms of deciding whether or not we are going to sacrifice beaches to marine mammals, and how aggressive we can be in areas like Monterey and other marinas where we are having problem animals.

Mr. POMBO. Can you address that and what at least to me appears to be a different level of enforcement or a difference in implementation of the Act between Monterey, as an example, and La Jolla?

Mr. LECKY. Let me set a context first, because I think in situations where populations are healthy, and they are at or near OSP, and expansion of the population on to new beaches is not essential to maintaining the health of that population.

That is the context that we find ourselves in, and in those areas really the solution to these problems in my view ought to be locally driven and not mandated from the Federal level. So we have been working with the local interests.

In Monterey, there is a broad interest and recognition that we need to deal with that problem and continue to provide access. We need to deal with the problem of these animals damaging private property and boats.

We need to deal with the fact that they are actually impeding perhaps public safety by not allowing the Coast Guard to get to their rescue vessels fast enough. Those are all things that the public says needs to be addressed, and so there is a consensus there.

And in San Diego, that is not the case. You only heard half of the story here this morning. There is a contingent of folks in San Diego that feel like Children's Pool is special. It is the only mainland haul out of Harbor seals for over a hundred miles.

There are thousands of tourists that come down to look at the seals every year, and some folks contend that that has an economic benefit that actually offsets the loss of the ability for access there.

So there is a local debate going on about what is the best way to manage this pool. I think we could support decisions to go either way given the tools that are in the statute. The animals clearly are causing water quality problems, public health problems.

There is an argument that you might decide to remove them for that reason. There is also an argument that you want to protect this population because it is special being on the coast and so far south. And that also is consistent with I think the statute and the way it goes.

The solutions that I think are not appropriate are the shared use concepts, because they do create internal conflictswithin the statue. They do expose people to getting written up for harassing animals or worse, and they do expose people to risk of injury from interacting with these animals.

So I think we have been trying to work with the local government for the last couple of years to come up with a solution that will work at Children's Pool. I think in some responses that they have set the stage for the answer that they wanted when they designated the off-shore rocks as a marine mammal reserve, and invited those animals into the area.

So on the one hand, they have got these local regulations that say that these are special animals and they need full protection, and this is a reserve. On the other hand, they have got a contingent that wants to move the animals out of the area. So my view is that they need to resolve their local conflict.

Mr. POMBO. Is that a case where you would defer to local decision or consensus locally in terms of how to handle it as long as it is within the—

Mr. LECKY. Yes. As long as the answer that they come up with is consistent with the overall purposes and goals of the Marine Mammal Act and does not create problems for the public in the way that it is implemented, I think we would give great deference to the local solution.

Mr. POMBO. And maybe you can answer this, or maybe Dr. Stewart, I'm not sure, but before they moved into the Children's Pool where were they?

Mr. LECKY. Well, there probably has been some increased immigration from outside areas, but there is a reef not too far away from Children's Pool where they animals were hauling out on the rocks at low tide.

Mr. POMBO. And I know that you are waiting for a local consensus on this, but it seems to me like maybe they would stay on those rocks, versus being in the pool, and that maybe that would be the compromise in this position. I mean, is that an acceptable—

Mr. LECKY. Well, if an acceptable program were put in place to harass the animals off the beach consistently that they would go somewhere, and some of them would go to those rocks. I think the capacity of those rocks is probably less than all of the animals that are there now, and so they might disperse to further off-shore rocks, or who knows where they could wind up. They could even go out to the Channel Islands for that matter.

Mr. POMBO. Mr. Brown, your testimony is very interesting, and I looked at a little bit on what your background was, and obviously you have spent a great deal of time on this particular issue over the years.

But one of the things that you testified to was about the impact on endangered species and can you expand upon that a little bit, because in endangered species hearings that we have had in the past, we have had some real conflicting testimony about what the impact is of the seals or sea lions on endangered salmonids, and I would like to have your input on that.

Mr. BROWN. Sure. Chairman Pombo, I guess I would start out by saying that I think as I mentioned that there are a lot of efforts under way, not only in Oregon, but in other States on the West Coast, in efforts to recover depleted and depressed stocks of salmon and steelhead, many of which are either federally listed under the ESA, or listed under State Endangered Species Acts.

Habitat recovery restrictions on that agriculture, land use by private property owners, and improvement of water quality, water flow, water temperatures, thin stream water rights questions and so on, and on, and on, and on, and restrictions of harvest and changes in hatchery production operations and so on.

There are quite a few people—and there are a fair number of our constituents—that feel that we also need to be looking at the possible negative effects of pinniped predation, and predation by other natural predators on the recovery of these stocks, and where so much time and energy, and money is going into trying to recover those stocks.

It has been our experience I think looking at this issue for not too long of a time. We have really been focusing on it for only say the past 5 or 6 years, the question of specific effects of seals or sea lions in localized situations on particular stocks of fish.

We have kind of seen results in our working group that are all over the board. In some cases, it looks like there may not be an impact on the stock of fish in a particular study area with a particular predator, whether it is seals or sea lions.

And in other cases it looks like there may be predation levels that occur from the 5, to 10, to 20 percent or more of a returning stock of adult migrating fish.

Then the question really becomes then I think for our fisheries managers is are those levels of proposed or postulated loss significant enough to where we want to propose some sort of management action that would reduce the level of predation, at least during a period when fish are recovering.

Again as I stated, we clearly recognize that these animals have co-existed successfully for a long, long time, and our focus is primarily on local situations where we have hundreds and sometimes thousands of seals, hundreds of sea lions in smallcoastal water bodies that are preying on fish, salmon and steelhead moving up some of our smaller coastal streams.

Where we are looking to recover estimating spanning population of maybe only several thousand fish. So those are the areas that we are really focusing on, and we really are trying to make some determinations about the impacts that these animals might have on slowing recovery.

We have worked with fish population modelers and they are telling us that if predation levels occur at this level, then this is how much longer it would take for a stock to recover, for example.

And we want to be able to share that kind of information with as many of the decisionmakers as we possibly can, and try to get the ideas of predation of these very, very healthy and abundant animals into the bigger picture of recovering some of these fish stocks.

Mr. POMBO. Well, that is an issue that we have been dealing with for a number of years and I had the opportunity to go watch at the mouth of the Columbia River as the salmon were coming back in, and sea lions or seals were out there catching them as fast as they possibly could, and it was all done in the context of an endangered species hearing.

And all of the problems and challenges that everybody had, and there were obviously a lot of questions that were raised at that point, and I am looking forward to the results of your studies as it continues to build, because that is an issue that not only affects marine mammals, but affects endangered species as well. Mr. Cunningham.

Mr. CUNNINGHAM. Thank you, Mr. Chairman. And I sit in a lot of hearings, but to me this is one of the more interesting hearings, because I am learning a lot about an area that I am not entirely familiar about.

So I have got some questions, and it is not directed at anybody. It is to expand my own knowledge on this. From the testimony that I heard earlier by Mr. Lecky, and Mr. Brown, when we talked

about inconsistency of the agencies and how the laws are enforced, should a person that loses his surfboard and goes into this area and gets his surfboard, and not intending to harass anybody, but to get his surfboard, should that individual be fined according to the agencies?

Mr. LECKY. I suppose that I should answer that question. I really can't comment on the particulars of that circumstance, because I am not aware of them all. On its face, it sounds—

Mr. CUNNINGHAM. I would presume that you would be the one that would.

Mr. LECKY. Well, on its face it does sound unreasonable. I will acknowledge that. But the issue of incidental harassment is one that is prohibited in the statute, and so the fact that you are just walking down on the beach and scaring animals off of the beach in some contexts can be harmful to animals.

It can cause separation of females and pups, and the like, and so the statute does contemplate that that is an activity that needs to be regulated. So in this circumstance, where an individual had a choice of perhaps not being able to get back to the beach, or harassing animals in an effort to save his own life, then I think he probably was within the bounds of doing the right thing, and should not have been punished for that.

But I don't know all of the particulars of that case, and clearly people going down on the beach to sit and sun themselves, where they are going to chase animals off the beach is something that is inconsistent with the current language in the statue.

Mr. CUNNINGHAM. Well, maybe you have answered it, but I used to go down with my children when they were just little ones, and they are all grown up now. One has graduated from college and the other one is a senior at Yale.

But I used to take them down and look at the tidal—we used to go down to Scripps Oceanographic and look in the aquariums and stuff, and show them the sea life. Then we would go down to La Jolla to the cove there, and we would look in the tidal pool.

We wouldn't allow them to touch them, but there was actually people that would teach my children that were down there, volunteers would show the children that this is a star fish, and this is a little abalone that lived in a tidal pool, or this is an octopus, and don't touch it. It will bite you.

And if I did that today, the same thing that I was doing 15 or 20 years ago, I would be arrested; is that correct, by going down and if I scare an animal off, say, Children's Beach there, or the tidal pools, and as I go down to show my children this thing, I wouldn't, because I went down there and I saw the defecation on there.

And I would not have my child down there. I would be afraid of disease. But if I was to go down there and show them, I would be arrested today for something that I did 15 years ago. And again I have listened to the testimony, but it used to be 10 to 30 seals in La Jolla. Now there is 180 to 200 animals there.

And you say that the rocks may not support them, but if there were only 30 seals there as historically, instead of the growth and population, maybe they could move. And when I went down there,

there were seals from time to time. Not every time I went down there.

But I would see a seal go in the water when I walked down there, and evidently what I did in the past, I can't do today. Is that true?

Mr. LECKY. Yes, I think it is. If you are down there and you disturb those animals off the beach, then likely you would be subject to a fine for illegally harassing animals. I think part of the message here though that you are getting at in my view is that there is a lack of clear guidance and policy on deciding whether or not in these circumstances that we want to give these beaches over to increasing pinniped populations.

I don't know if you saw Dr. Stewart's slide on elephant seals at Piedras Blancas, but there was a similar situation up there, where elephant seals had moved on to a beach, and the number of pups born on those beaches has gone from a few tens of animals to breeding thousands.

Mr. CUNNINGHAM. Is there a breeding period like most animals have?

Mr. LECKY. Yes.

Mr. CUNNINGHAM. You know, I hunt, and I hunt white tail deer, and so on up in Oregon, and the population of white tail there has been devastated from disease. I mean, I will go up there and visit a friend of mine up there in Roseburg, and I will see 200 deer, and they can't even hardly walk. They are so sickly because they were protected, and interbred and everything else.

And I see the same possibility here, but with the seals, when I would go down there, if there is a specific period would it be a compromise not to let anybody go down there during the whelping period so that pups aren't separated when they are at that age, versus that surely not 12 months out of a year.

And also would it not be reasonable to limit the number of seals or have management at least control the number so that we can go back and live in harmony with the seals like we did when I took my children down there, versus the over-population, to allow the agencies to say, hey, guys, go down there and live on the rocks and not here.

Because I also serve on the Labor and HSS committee, which I fund NIH, and we have doubled medical research. But we also look at disease, like hepatitis, like HIV. I had a little girl in my district die of E-coli from fecal material, and I want to bring them in and see what is the public health aspects of having—I don't want people defecating on my beaches. I will tell you that I would stop them right now.

Now, you can't stop a cow from defecating in a dairy farm, but there is a specific area, and it is not public. But in a public area, I don't want my children walking through that stuff and it should be stopped, or at least limited to where we can go back in harmony like we did 10 or 15 years ago when I would go down there.

And have a limited number of seals there in harmony, but if I walked down there in a non-whelping area, and a seal goes in the water, that's fine. I will tell you what. If a lion came into the area, I might go in the water, too, and I think that would be natural, and it would probably be self-preservation.

Mr. LECKY. Congressman Cunningham, we do have an example of public beach in Hood Canal, where we excluded Harbor seals in order to protect public resource. There is interest in an recreational climbing beach, where the E-coli count had gotten so high that public health officials closed the recreational harvest to clams.

We excluded animals from those beaches by building fences out into the marine environment for over a period of 2 years. So I think there are tools in the statute where we can make those kinds of decisions and support them.

But this concept of share use in my view is not consistent with the existing statutory structure and really isn't probably very practical.

Mr. CUNNINGHAM. And I think that is the whole issue and that is the reason that I tried to bring that conversation to this, and what the Chairman is trying to do. How do we get with the different groups that have interests that want to save the animals.

I love to go down and see the seals with my family, but when they get to a point of over-population that risks us not only from personal attack, but risk us from disease—and I will tell you one thing. I have got a boat in Washington, D.C., and in the evenings I have got ducks that sit on the swim platform, and I will tell you that they make a heck of a mess.

I mean, they are probably worse than these damn seals. Now I go and squirt them with a hose. It doesn't bother them. Some environmentalists will say that you are working with the psyche of this duck, but I also have to squirt off the defecation of it, too.

So if I go squirt a seal and he goes in—I mean, we need some consistency on this thing, and that is what I am taking a look at. I will tell you what, like I said, my bill stopped off-shore oil drilling because I didn't want our beaches polluted.

But I sure don't want our beaches polluted by pinnipeds or anything else, and we need to stop that for public health. If there is a private property like we saw with these boats, it is going to stop. I will do everything that I can to stop seals from damaging boats, attacking people.

If you had a lion—look, I have seen—Discovery is one of my favorite channels, and I see where bears come in the city and attack people, or even moose, and you have got to stop that. And you need to stop this as well.

And there should be absolute consistency in doing this as well. I also stopped fishermen from coming in—like I said, the tuna dolphin bill. We were depleting and we were killing subspecies—turtles, subspecies fish, and they were netting and they were throwing back the shark finning and stuff.

And I will stop that, but I also in the name of public safety will stop seals from attacking people or causing damage through disease or anything else. And all that I would ask from you and the Chairman is to have some kind of balance.

And to figure out some number that existed 10 or 15 years ago on those beaches, and let the seals live there. But if I walk down and show my kids a tide pool, and one goes in the water—I mean, that doesn't hurt the seal.

Now, if there is a pup and he gets separated, yeah, it might, and maybe we can have a term where those pups are so young that we

would not do that. And I think that is the balance that we are looking for here.

Now, maybe some groups say, hey, no. There is 180 to 200 seals there. Don't touch them. Well, I disagree with that. And there is the other groups that say I want all the seals gone, and I disagree with that also. I am just letting you know where I come from.

Mr. LECKY. I appreciate that, and I know Congressman Pombo has been struggling with the definition of harassment, and we would appreciate the opportunity to struggle along with him.

Mr. CUNNINGHAM. I do, too. And I think that Fish and Wildlife does a good job. I think at times that we fought extremists on both sides for all of us, you and I both on both sides of this coin.

And all I am asking is somewhere to come in the middle with the groups that want to save the seals, to the groups that want to use the public beaches. And I thank all of you for coming and your testimony, and I thank my colleague, Chairman Pombo.

Mr. POMBO. Thank you, Mr. Cunningham. I just had one final question that I would like the panel to respond to, and it is dealing with the definition of harassment. And it is something that we have really struggled over, in terms of what constitutes harassment.

And Congressman Cunningham is talking about if you walk down to the beach and a seal jumps in the water, should that be a regulated harassment; or should we have what many people are pushing for, a higher level of harassment, where you actually run the risk or the likelihood that there could be some change in the behavior of the marine mammals.

And I would like to have some response to that, and let me know—and I will start with Dr. Hanan, but just kind of give me an idea of what you are thinking in terms of that.

Dr. Hanan. In my opinion, the level of harassment should be related to the status of the population that you are talking about. Abundant sea lions and abundant Harbor seals, some harassment is not going to affect that population as a whole. Some harassment of a right whale could be significant. So I think that you need to look at the status of the population that you are talking about.

Mr. POMBO. Now your response is kind of what I was getting to before about differing levels of protection based upon the population. Dr. Stewart.

Mr. STEWART. I agree with Doyle, but there is a contextual issue, too, about where the harassment takes place, not only in terms of population size, but what is involved biologically.

And I think that the context is important in the thinking and the distinction between areas like Monterey, where sea lions are hulling out there seasonally, and La Jolla, and Children's Pool, which is a colony, and that's why the beach was regulated more heavily and closed off, because it is treated now just like any other colony, like the colonies on the Channel Islands.

And I think clearly a disturbance out there by tourists or Navy personnel would probably have a substantial impact long term, and that would affect the status of the population, and that is what I think was translated to La Jolla once the area was designated as a colony and the harassment was limited.

At least year around, and I think the question of whether it would have an impact on the population outside the breeding season would be an issue, and I think that is an open one, and one that I think we really have not been thinking about much.

But the issue in Monterey has been resolved—and I think the harassment—by consultation with NOAA Fisheries through a little trap door in the MMPA that allows disturbance, directed disturbance for public safety issues.

And I think that was discussed or thought about, or contemplated, at La Jolla before the area was reclassified as a natural colony, of disturbing animals. And that came up in the context of a discussion about the pollution of the waters, and the closure of the cove in La Jolla because of the high E-coli levels.

So there is a contextual issue that is very important, and the MMPA does allow for harassment in some cases without going through a full incidental harassment permit. But in other cases, in San Diego's, from what I understand of the city's interest, is that they would like a solution that allows for two things.

One, the cleaning up of the water in the pool that would allow people to go in there and safety swim; and also shared use, and that involves shared use of the beach, which is a more difficult issue.

Regardless of how that goes forward with the city, there is still the Federal issue of getting the incidental harassment permit to allow shared use, because there certainly would be some of that involved, either seasonally or perhaps year around.

And that would have to go through the full public review, and I think that is when we would see not just San Diego's interest, but the national interest in what the solution to this would be, but perhaps give us some idea of what the solution might be for many of these areas that are now being confronted with increasing pinnipeds, East Coast and West Coast.

Mr. CUNNINGHAM. Would the Chairman yield?

Mr. POMBO. Yes.

Mr. CUNNINGHAM. To be fair, the San Diego area especially with Mexico and pesticides coming into our—you know, in Delmar, you look at that river coming in, and when we are talking about pollution of the ocean, it is not just the seals. We have a major problem with our beaches closing from fecal material coming down. You know the highest fecal count river in the United States worse than Alongapo? It is the Anacostia River coming out of Washington, D.C., because every time it rains, that raw feces goes into the Anacostia, and they have got fish not dying of disease, but dying because the bacteria count is so high that it eats up the oxygen.

But we have a problem here with chemicals, with plants that are not working, and I know that the Chairman is working on that as well. But it is not just—I don't want the pollution from a pinniped, but I don't want it from man either, and we need to balance what we are doing.

And environmental groups are right. We need to do our job in Congress and fund some of these things that stop the pollution of our wetlands and the rest of it, and to control pinnipeds as well. Thank you, Mr. Chairman.

Mr. POMBO. Mr. Brown, did you want to respond to that?

Mr. BROWN. Sure. I will make a few comments, Chairman Pombo and Congressman Cunningham. I guess I would say that you raised the question of driving seals into the water by walking down the beach.

I mean, technically under the Marine Mammal Protection Act, that is a violation of the law, and I guess technically in the most stringiest definition of harassment, it is that as well. We also have State statutes as to disturbance and harassment to wildlife, and including seals and sea lions.

Of course, in this case our laws are overridden by the Federal law, but I would think that our State laws in many other States would also want to ensure that forms of wildlife are not subjected to undue levels and levels of harassment that would cause serious problems.

I strongly support the idea of separate use and separate areas. I have real problems with these ideas of thinking that we can do the same kinds of things in the same areas, and that we can sit on the beach with seals a little ways away, and that we won't ever have a problem, and everything will always be OK.

So I think that a lot of work has to go into figuring out how to do that. One thing that we have talked about and of course it has just been discussions, but most all of our coastal bays and estuaries have dozens, and hundreds, and sometimes thousands of seals in them.

And we have had discussions about, well, perhaps a better way would be to have some areas where seals are highly protected, and people can see them and visit with them, and enjoy them in that case.

And then have other areas where systems are set aside for sport or commercial fishing, or for commerce, or for other purposes. Those are just discussions that we have had, and it kind of gets back to that idea of separate use and separating some of these things.

We would also support some way to sort of separate out kind of levels of why harassment would occur. Obviously public health and safety would be at the top of the list. Preservation of property, both public and private, and then as you step down in certain areas, you may restrict harassment levels on these animals more and more.

I guess I would say finally that we work with most all of our ports up and down the coast, and private property owners, and other groups, to try to have a heads-up approach to the type of—well, I guess it has already been labeled the Children's beach seal problem.

We are trying to avoid that kind of a thing, and if we have seals start to haul out on docks and certain marinas, and we communicate and discuss things with the port, and we say is this something that you want to try to avoid, well, let's get ahead of it, and under the current law we are allowed to disturb seals and sea lions off of property like that that may be impeding the use that they were intended for or causing destruction.

And we try to carefully work within the law and get ourselves in a situation where we don't develop these kinds of serious problems. It does not mean that we are going to be successful in every case.

Mr. POMBO. Mr. Lecky, with you I think it is probably better if you answer this one for the record.

Mr. LECKY. I was just going to try and avoid that, Congressman. I now that my agency has testified in the past on this issue, and so I will try and be careful.

Mr. POMBO. OK.

Mr. LECKY. I think where we have the most trouble with the harassment issue is in the area of unintentional harassment. And looking down at the tide pool, we have problems in the national seashore with abalone pickers chasing Harbor seals off the rocks, for example.

And I think in trying to better figure out how to deal with unintentional harassment, I think we really do need to factor in issues of what is the status of the animals that are being harassed, and what is the status of the activities that they are engaged in that they are being diverted from.

Are these sperm whales that are in the process of breeding, and we are causing them not to breed. That is an important issue that where unintentional harassment ought to be avoided, and we ought to have tools to regulate activities that cause that kind of unintentional harassment.

I think the kinds of unintentional harassment, where we are inadvertently startling animals that are just in a resting position off the rocks, and then they come back later, is something that does not have a severe or adverse impact on the animal or its population. And we ought to have ways of tolerating that and being able to distinguish between those kinds of impacts.

Mr. POMBO. I am very interested in your answer, and I don't know how I would word this yet. We are still trying to figure this out, but I really do believe that there ought to be enough flexibility in the Act that when you are going out and implementing it that you can make those determinations.

Is this a highly endangered species when you are talking about whales and some of our bigger problems, in terms of recovery; versus sea lions or Harbor seals, and the situation that they are in.

And in working with the scientists and in working with the biologists, and trying to figure this all out, it seems to be that there is—and there is not unanimity, but there is a broad consensus that there should be different levels of protection, and a different definition of what harassment is in different situations.

And we are trying to figure out how exactly we would put this in legislative language so that it is not a time bomb for you guys to try to implement when you get to that point, but I would like to figure out a way to do that and give you the flexibility in implementation so that you can actually look at each situation differently, and have the flexibility to say that really does not impact a sustainable population of that particular species in this area.

And therefore we can treat that differently than we do in other situations, and I know that you try to do that, and I am not sure how much real flexibility there is in the law, versus how much we are trying to put into it.

But since we are in the middle of doing a reauthorization, I would like to have as much input as possible, and your agency has

testified in the past on this, and I look forward to having the opportunity to continue to work with you guys to try to come up with that.

And I know that this is something that the Subcommittee Chairman, Mr. Gilchrest, has a definite interest in, because there is differences between the West and the East, and there is differences in populations, and somehow the law has to reflect that and I am concerned that it does not.

Mr. LECKY. I think we made an effort to go there with the designation of Level A and Level B, and I think we just need to continue to refine that, probably with some direction from you folks, and probably with some additional policy and guidance that we can construct on our own.

Mr. POMBO. Thank you. I want to thank this panel very much for your testimony. I know that it was very interesting for me and Mr. Cunningham to have the opportunity to pick your brains a little bit. So thank you very much.

I want to take this opportunity to again thank our host for allowing us the opportunity to use this facility for the members of the audience who made the effort to be here, and listen, and I will tell you that the record, the Congressional record, will be held open. I will hold it open for the next 2 weeks to give people the opportunity that want to submit testimony to be included as part of this hearing.

That can be submitted to the House Resources Committee, and we will hold the record open to give everybody the opportunity to do that. So thank you all very much for being here, and I thank the panel, this panel and the previous panel, and the hearing is adjourned.

[Whereupon, at 12:33 p.m., the subcommittee was adjourned.]